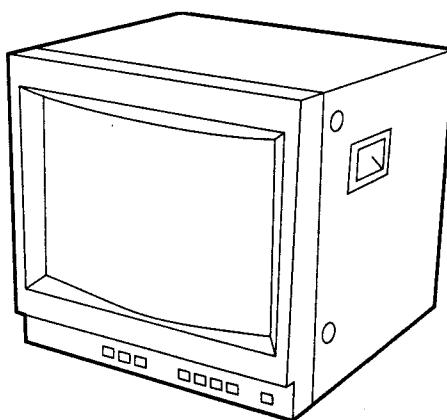


SERVICE MANUAL

SIIA CHASSIS

MODEL	DEST.	CHASSIS NO.	MODEL	DEST.	CHASSIS NO.
PVM-14N5A	AUS	SCC-N87D-A	PVM-20N5A	AUS	SCC-N87F-A
PVM-14N5E	AEP	SCC-N86C-A	PVM-20N5E	AEP	SCC-N86E-A
PVM-14N5MDE	AEP	SCC-N86F-A	PVM-20N5U	US/CND	SCC-N84D-A
PVM-14N5U	US/CND	SCC-N84B-A	PVM-20N6A	AUS	SCC-N87E-A
PVM-14N6A	AUS	SCC-N87C-A	PVM-20N6E	AEP	SCC-N86D-A
PVM-14N6E	AEP	SCC-N86B-A	PVM-20N6U	US/CND	SCC-N84C-A
PVM-14N6U	US/CND	SCC-N84A-A	SSM-20N5A	AUS	SCC-N87B-A
SSM-14N5A	AUS	SCC-N87A-A	SSM-20N5E	AEP	SCC-N86G-A
SSM-14N5E	AEP	SCC-N86A-A	SSM-20N5U	US/CND	SCC-N84F-A
SSM-14N5U	US/CND	SCC-N84E-A			



TRINITRON® COLOR VIDEO MONITOR

SONY®

⚠ WARNING

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

(PVM-14N5MDE only)

Electromagnetic Compatibility		This device complies with the requirements of Directive 89/336/EEC concerning electromagnetic compatibility. This device meets EN50081-1/92 and EN50082-1/92.
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WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDE À L'ALIMENTATION SECTEUR.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE Δ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSERES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDICÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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SONY.

3-884-157-1(2)

Trinitron® Color Video Monitor

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SECTION 1 OPERATING INSTRUCTIONS

1-1. PVM-14N5/14N6 (A/E/U), PVM-20N5/20N6 (A/E/U)

This section is extracted
from operating instructions

Trinitron

**PVM-14N5A/14N5E/14N5U
PVM-14N6A/14N6E/14N6U
PVM-20N5A/20N5E/20N5U
PVM-20N6A/20N6E/20N6U**

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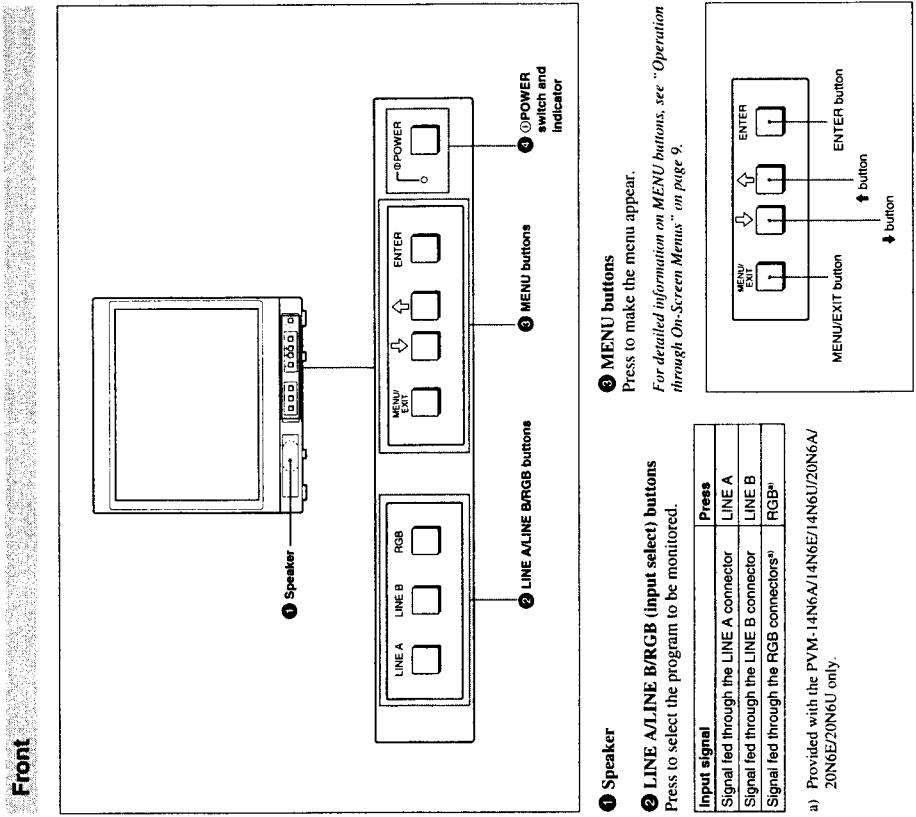
Features



Picture	Functions
	<p>Fine pitch Trinitron¹⁾ picture tube The fine pitch Trinitron tube provides a high resolution picture. Horizontal resolution is more than 500 TV lines at the center of the picture.</p> <p>Comb filter When NTSC video signals are received, a comb filter activates to make more accurate Y/C separation. This contributes to less of a decrease in resolution, cross color and cross luminance phenomena.</p> <p>Beam current feedback circuit The built-in beam current feedback circuit assures stable white balance.</p> <p>Four color system available The monitor can display NTSC, PAL, SECAM and NTSC_{4.43}²⁾ signals. The appropriate color system is selected automatically.</p> <p>Input</p> <p>Analog RGB input connectors (for PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only) Analog RGB signals from video equipment can be input through these connectors.</p> <p>Y/C input connectors The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, ensuring video quality.</p> <p>Automatic termination (connector with λ-mark only) The input connector is terminated at 75 ohms inside when no cable is connected to the loop-through output connector. When a cable is connected to an output connector, the 75-ohm termination is automatically released.</p>
	<p>On-screen menus You can set monitor operation settings by using the on-screen menus.</p> <p>EIA standard 19-Inch rack mounting By using an MB-502B mounting bracket (for a 14-inch monitor, not supplied) or SLR-103A slide rail (for a 20-inch monitor, not supplied), the monitor can be mounted in an EIA standard 19-inch rack.</p> <p>Attention - when the product is installed in a rack:</p> <ul style="list-style-type: none"> • Elevated operating ambient temperature If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature of 0 to +35 °C (Tmax). • Reduced air flow Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised. • Mechanical loading Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading. <p>Circuit overloading Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.</p> <p>Reliable earthing Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).</p>
	<p>① Speaker The built-in speaker provides a high quality sound system.</p> <p>② LINE A/LINE B/RGB (input select) buttons Press to select the program to be monitored.</p> <p>③ MENU buttons Press to make the menu appear.</p> <p><i>For detailed information on MENU buttons, see "Operation through On-Screen Menus" on page 9.</i></p> <p>④ POWER switch and indicator Press to turn the monitor on. The indicator lights in green. To turn the power off, press this again.</p>
	<p>① Speaker The built-in speaker provides a high quality sound system.</p> <p>② LINE A/LINE B/RGB (input select) buttons Press to select the program to be monitored.</p> <p>③ MENU buttons Press to make the menu appear.</p> <p><i>For detailed information on MENU buttons, see "Operation through On-Screen Menus" on page 9.</i></p> <p>④ POWER switch and indicator Press to turn the monitor on. The indicator lights in green. To turn the power off, press this again.</p>



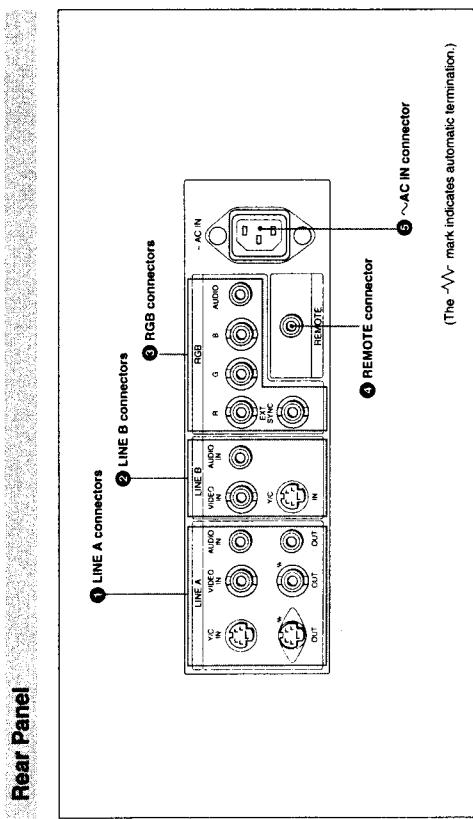
Location and Function of Parts and Controls



1) **Trinitron**
"Trinitron" is a registered trademark of Sony Corporation.

2) **NTSC_{4.43}**
The NTSC_{4.43} system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43MHz. When an NTSC recorded video program is played back with a Trident (PALSECAM/NTSC_{4.43}) VTR, the NTSC_{4.43} signal is output.

Location and Function of Parts and Controls



Rear Panel

② LINE B connectors
Input connectors for the composite video, Y/C separate video and audio signals.
To monitor the input signal fed through these connectors, press the LINE B button on the front panel.

Y/C IN connector (4-pin mini-DIN)
Connect to the Y/C separate output connector of a video camera, VCR or other video equipment.

VIDEO IN connector (BNC-type)
Connect to the video output connector of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

AUDIO IN connector (phono jack)
Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

③ ~AC IN connector
(The ~V~ mark indicates automatic termination.)

④ REMOTE connector

⑤ EXT SYNC (external sync input) connector (BNC-type)
Connect to the sync signal output of a video camera, VCR or other video equipment.
When you set RGB SYNC TO SYNC ON GREEN in the menu, the monitor operates on the sync signal from the G channel so that it is not necessary to use this connector.
For detailed information on sync signal setting, see "3d RGB SYNC menu" on page 12 of "Functions of On-Screen Menus".

⑥ REMOTE connector (phono jack) (provided with the PVM-14N6A/14N6E/14N6U / 20N6A/20N6E/20N6U only)
This connector functions as follows.
Open: When this connector is open, the current input signal is selected.
Ground: By grounding this connector, the input signal selected before the current signal is selected.

⑦ ~AC IN (inlet) connector
Connect the supplied AC power cord to this connector and to a wall outlet.

⑧ RGB connectors (provided with the PVM-14N6A/14N6E/14N6U / 20N6A/20N6E/20N6U only)
Analog RGB input connectors for the R/G/B signals, external sync signals and audio signals.
To monitor the input signal fed through these connectors, press the RGB button on the front panel.

R/G/B (input) connectors (BNC-type)
Connect to the analog RGB outputs connectors of a video camera, VCR or other video equipment. The monitor operates on the external sync signal. The monitor also can operate on the sync signal from the G channel by setting RGB SYNC TO SYNC ON GREEN in the menu.
For detailed information on sync signal setting, see "3d RGB SYNC menu" on page 12 of "Functions of On-Screen Menus".

VIDEO OUT connector (BNC-type)
Loop-through output connector of the VIDEO IN connector. Connect to the video input connector for a VCR or another monitor.
When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN connector (phono jack)
Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

AUDIO OUT connector (phono jack)
Loop-through output of the AUDIO IN connector. Connect to the audio input connector of a VCR or another monitor.

Y/C IN connector (4-pin mini-DIN)
Connect to the Y/C separate output connector of a video camera, VCR or other video equipment.
When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

Y/C OUT connector (4-pin mini-DIN)
Loop-through output of the Y/C IN connector. Connect to the Y/C separate input connector of a VCR or another monitor.

Using On-Screen Menus

You can make various settings and adjustments of the monitor using the on-screen menus.

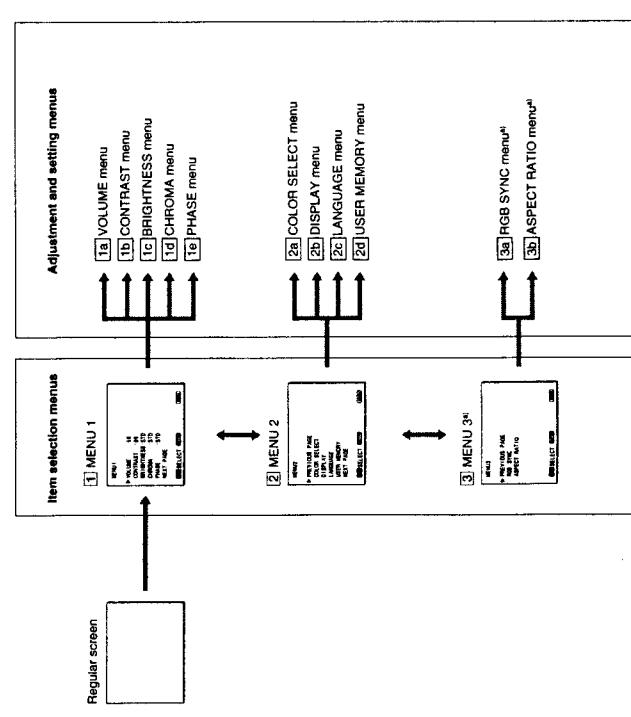
On-Screen Menu Configuration

The on-screen menu is composed of the following two menu types.

Item selection menu

You can select an adjustment and setting item such as sound volume, contrast, brightness, color intensity, color system and menu language by using the **↑**, **↓**, and **ENTER** buttons.

On-screen menu tree-chart



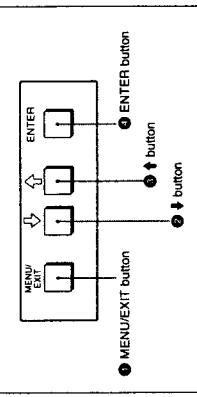
a) These menus (3, 3a and 3b) are provided with PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only.

Operation through On-Screen Menus

Usable buttons depend on the displayed menu. Buttons that can be used on the menu are displayed at the bottom line of the screen. You can perform menu operation using displayed buttons.

Menu operation buttons

There are four menu operation buttons on the front panel of the monitor.



Operating procedures

To display the menu, follow this procedure.

- 1 Press the MENU/EXIT (1) button.
- 2 MENU 1 appears.
- 3 To select items other than ones not displayed on MENU 1
 - 1 Select [2] MENU 2 or [3] MENU 3¹⁾.
 - 2 Move the cursor to the desired item by pressing the ↓ or ↑ (2, 3) button.
 - 3 Press the ENTER (4) button.
- 4 The adjustment and setting menu selected in step 2 appears.

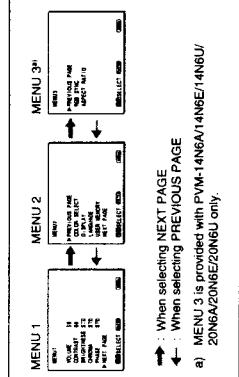
For detailed information of menus, see "Functions of On-Screen Menus" on page 10.

¹⁾ [3] MENU 3 is provided with PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only.

Using On-Screen Menus

Functions of On-Screen Menus

To change the item selection menus
Select NEXT PAGE on the menu to display next item selection menu and PREVIOUS PAGE on the menu to display the previous item selection menu.



How to change the item selection menu

To return to the item selection menu from the adjustment and setting menus
Press the MENU/EXIT (①) button on the currently displayed adjustment and setting menu.

To close the menu (to return to the regular screen)
Press the MENU/EXIT (①) button when the item selection menu is displayed. The on-screen menu disappears and the regular screen appears.

Using the Last Control Function
If you press the **↑** or **↓** button when the menu is not displayed, one of the following menu items that you adjusted last time is displayed.

- VOLUME

- CONTRAST

- BRIGHTNESS

- CHROMA

• PHASE

Then you can adjust the item immediately.

1b CONTRAST menu (Factory setting: 80)

Note
The phase of an NTSC composite video signal or a Y/C separate signal can be corrected on this menu. The PAL composite video signal or a Y/C separate signal and RGB signals cannot be corrected.



Ajust the contrast of the screen.
The contrast becomes higher by pressing the **↑** button.
The contrast becomes lower by pressing the **↓** button.

1c BRIGHTNESS menu (Factory setting: STD)

Ajust the brightness of the screen.
The screen becomes brighter by pressing the **↑** button.
The screen becomes darker by pressing the **↓** button.



1d CHROMA menu (Factory setting: STD)

Ajust the color intensity of the video signal.
The color intensity strengthens by pressing the **↑** button.
The color intensity weakens by pressing the **↓** button.



1e PHASE menu (Factory setting: STD)

Ajust the phase of the video signals.
The skin tone becomes greenish by pressing the **↑** button.
The skin tone becomes purplish by pressing the **↓** button.



1a VOLUME menu (Factory setting: 50)

Ajust the speaker volume.
The volume increases by pressing the **↑** button.
The volume decreases by pressing the **↓** button.



2a COLOR SELECT menu (Factory setting: AUTO)

Select the color system of the input signal.
AUTO: Input color systems are automatically selected.
When you input NTSC signal, comb filter will activate. To monitor NTSC signal with trap filter, select NTSC in this menu.



2b DISPLAY menu (Factory setting: SHORT TIME)

Select the period of displaying the color system of the current input signals.
The items have the following functions.



2c LANGUAGE menu (Factory setting: ENGLISH)

Select the menu language among the five languages, English, German, French, Italian and Spanish.



Using On-Screen Menus

Connections

Specifications

The following menus are provided with the PVM-14N6/A/14N6E/14N6U/20N6/A/20N6E/20N6U only.

3d USER MEMORY menu



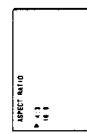
The items have the following functions.

Item	Function
STORE	To store all adjustments and settings currently set on each menu into the internal memory.
RECALL	To recall all adjustments and settings currently stored in the internal memory.
FACTORY PRESET	To reset the adjustments and settings currently set on each menu to the factory settings. ^{a)}

Select the sync signal when the RGB signals are input. The items have the following functions.

Item	Function
EXT SYNC	To operate the monitor on an external sync signal fed through the RGB SYNC connector.
SYNC ON GREEN	To operate the monitor on the sync signal from the G channel.

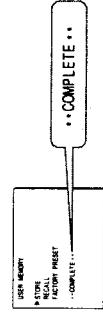
3b ASPECT RATIO menu (Factory setting: 4:3)



Select the aspect ratio of the screen.

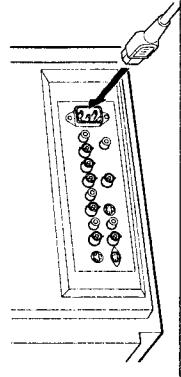
a) The current settings and adjusted values are reset to the factory settings. The values and settings adjusted and stored in the internal memory by using the STORE menu, however, are not changed. To reset internally stored adjusted values and settings to the factory setting, select FACTORY PRESET, first, then select STORE.

When you press the ENTER (①) button, the following message is displayed for about two seconds. The currently selected item becomes active when pressing the ENTER (②) button.



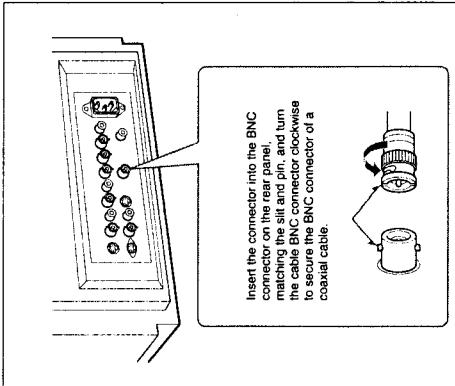
How to Connect the AC Power Cord

Connect the AC power cord (supplied) to the \sim AC IN connector and to a wall outlet.



How to Connect a Cable to a BNC Connector

Connect the coaxial cable with the BNC connectors to the BNC connectors on the rear panel as illustrated below.



Video signal

Color system NTSC, PAL, SECAM, NTSC_{a)}
Resolution 500 TV lines
LINE 6 MHz±3dB (Y signal)
RGB 6 MHz±3dB

Picture performance

Normal scan 7 % over scan of CRT effective screen area
H. linearity Less than 8.0 % (typical)
V. linearity Less than 7.0 % (typical)
Color temperature D65

Inputs

LINE A/B 4-pin mini-DIN (x2)
Y/C IN 4-pin mini-DIN (x2)
See the pin assignment on the next page.
VIDEO IN BNC connector (x2), 1Vp-p+3dB,
-6dB, sync negative
AUDIO IN Phono jack (x2), -5 dB^{a)}, more
than 47 kilo-ohms
RGB (PVM-14N6/A/14N6E/14N6U/20N6/A/20N6E/
20N6U only) BNC connector (x3)
R/G/B 0.7 Vp-p +3 dB, -6 dB
Sync on green: 0.3 Vp-p, negative
AUDIO IN Phono jack (x1), -5 dB^{a)}, more
than 47 kilo-ohms
EXT SYNC BNC connector (x1)
4 Vp-p +3 dB, -6 dB, sync
negative
REMOTE (PVM-14N6/A/14N6E/14N6U/20N6/A/
20N6E/20N6U only) Phono jack (x1)
Open: currently selected input
signal
Low state (GND): input signal
selected prior to the current input
signal

a) 0 dB^{a)} = 0.775 V_{r.m.s.}

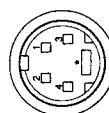
Specifications**Troubleshooting**

Outputs	Dimensions (w/h/d)	
LINE A	PVM-14N5A/14N5E/14N5U/ 14N6A/14N6E/14N6U: 346 × 340 × 414 mm (13 1/2 × 13 1/2 × 16 1/4 inches)	
Y/C OUT	4-pin mini-DIN (x1) loop-through. Automatic 75 ohms termination	PVM-20N5A/20N5E/20N5U/ 20N6A/20N6E/20N6U: 449 × 441 × 502 mm (17 1/2 × 17 1/2 × 19 1/2 inches)
VIDEO OUT	BNC connector (x1) loop-through. Automatic 75 ohms termination	PVM-14N5A/14N5E/14N5U/ 14N6A/14N6E/14N6U: 346 × 340 × 414 mm (13 1/2 × 13 1/2 × 16 1/4 inches)
AUDIO OUT	Phone jack (x1) loop-through. Output level: 0.8 W	Mass
Speaker output		Approx. 1.5 kg (3.3 lb. 1 oz.)
General		PVM-20N5A/20N5E/20N5U/ 20N6A/20N6E/20N6U: 449 × 441 × 502 mm (17 1/2 × 17 1/2 × 19 1/2 inches)
CRT	PVM-14N5A/14N5E/14N5U/ 14N6A/14N6E/14N6U: 14-inch CRT with P-22 phosphor Visible picture size 340 mm (13-inch measured diagonally)	Dimensions (w/h/d)
	PVM-20N5A/20N5E/20N5U/ 20N6A/20N6E/20N6U: 20-inch CRT with P-22 phosphor Visible picture size 490 mm (19-inch measured diagonally)	
		Power consumption
		PVM-14N5A/14N5E/14N5U: 80W PVM-14N5A/14N5E/14N5U: 80W PVM-20N5U/20N6U: 100W PVM-20N5A/20N5A/20N5E/ 20N6E: 105 W
Power requirements	100 to 240 V AC, 50/60 Hz "For use of PVM-14N5U/14N6U/ 20N5U/20N6U... operate these monitors on 120 V AC."	
Operating conditions	Temperature 0 to +35°C Humidity 0 to 90% (no condensation)	
Transport and Storage conditions	Temperature -10 to +40°C Humidity 0 to 90%	

This section may help you isolate the problem. Should the problem persist, unplug the unit and contact your Sony dealer or local authorized Sony service facility.

Symptom	Possible causes and remedies
If colors are not accurately reproduced	The monitor input signal is deviated from the color system specifications (i.e. signals from VCRs). Proceed as follows to correct this phenomenon. 1 Confirm the color system of the input signal. 2 Select the same color system as that of the input signal on the COLOR SELECT menu. If the problem remains unsolved after corresponding color system is selected, briefly turn OFF the power, then turn ON the monitor again.

Pin assignment	Y/C IN connector (4-pin mini-DIN)
	Accessory supplied AC power cord (1) Operating Instructions (1)



Design and specifications are subject to change without notice.
SIIA C-tassus

SONY®

3-864-165-11(2)

1-2. PVM-14N5MDE

Trinitron® Color Video Monitor

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Trinitron

PVM-14N5MDE

© 1998 by Sony Corporation

Precaution

Table of Contents

Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____
Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Dangerously high voltage are present inside the unit.

Do not open the cabinet. Refer servicing to qualified personnel only.

In the event of a malfunction or when maintenance is necessary, consult an authorized Sony dealer.

Power Switch

The power switch is a functional switch only. To isolate the set from the mains supply remove the mains plug from the wall socket.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHTED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow: Earth

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows: The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \triangle or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Ensure that your equipment is connected correctly. If you are in any doubt consult a qualified electrician.

This unit contains substances which can pollute the environment if disposed carelessly. Please contact our nearest office or your local environmental office in case of disposal of this unit.

ATTENTION:

Picture distortion may occur if this monitor is positioned in close proximity to any equipment emitting electromagnetic radiation.

Features

Location and Function of Parts and Controls

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Connections 14

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About this manual

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Attention – when the product is installed in a rack:

•Elevated operating ambient temperature
If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature of 0 to +40 °C (104 °F).

•Reduced air flow
Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

•Mechanical loading
Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

•Circuit overloading
Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring.

Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Reliable earth

Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

3

On safety

- Operate the unit only with a power source as specified in "Specifications" section.
- The nameplate indicates operating voltage, power consumption, etc., is located at the rear.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Do not drop or place heavy objects on the power cord. If the power cord is damaged, turn off the power immediately. It is dangerous to use the unit with a damaged power cord.
- Unplug the unit from the wall outlet if it is not to be used for several days or more.
- Disconnect the power cord from the AC outlet by grasping the plug, not by pulling the cord.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

On installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On cleaning

- To keep the unit looking brand-new, periodically clean it with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since they will damage the cabinet. As a safety precaution, unplug the unit before cleaning it.

On repacking

- Do not throw away the carton and packing materials. They make an ideal container to transport the unit.
- If you have any questions about this unit, contact your authorized Sony dealer.

Features

Symbols on the unit			
Symbol	Location	This symbol indicates	
	Front panel	Main power switch. Press to turn the monitor on or off.	
	Rear panel	The equipotential terminal which brings the various parts of a system to the same potential.	
	Inside the unit	Protective earth	
	Rear panel	Alternating current	
	Inside the unit	Presence of uninsulated "dangerous voltage" within the product's enclosure that may be sufficient to constitute a risk of electric shock.	
	Rear panel	Attention, consult ACCOMPANYING DOCUMENTS	

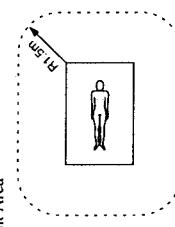
Be sure to connect the AC power cord to a grounded outlet.

Important safeguards/notices for use in the medical environments

1 All the equipments connected to this unit shall be certified according to Standard IEC601-1, IEC950, IEC65 or other IEC/ISO Standards applicable to the equipments.

2 When this unit is used together with other equipment in the patient area*, the equipment shall be either powered by an isolation transformer or connect via an additional protective earth terminal to system ground unless it is certified according to Standard IEC601-1 and IEC601-1-1.

* Patient Area



3 The leakage current could increase when connected to other equipment.

4 The operator should take precautions to avoid touching the rear panel input and output circuitry and the patient at the same time.

5 Model PVM-14NSMDE is a video monitor intended for use in a medical environment to display video pictures from cameras or other video system.

Picture	Functions
Fine pitch Trinitron¹ picture tube	On-screen menus The fine pitch Trinitron tube provides a high resolution picture. Horizontal resolution is more than 500 TV lines at the center of the picture.
Comb filter	EIA standard 19-inch rack mounting When NTSC video signals are received, a comb filter activates to make more accurate Y/C separation. This contributes to less of a decrease in resolution, cross color and cross luminance phenomena.
Beam current feedback circuit	Side covers The monitor can be covered with side covers. The side covers that protect the ventilation holes from splashes (of medicines, etc.) as much as possible.
Four color system available	
Input	
Y/C input connectors	
Automatic termination (connector with $\sim\sim$ mark only)	

The fine pitch Trinitron tube provides a high resolution picture. Horizontal resolution is more than 500 TV lines at the center of the picture.

When NTSC video signals are received, a comb filter activates to make more accurate Y/C separation. This contributes to less of a decrease in resolution, cross color and cross luminance phenomena.

The monitor can be covered with side covers. The side covers that protect the ventilation holes from splashes (of medicines, etc.) as much as possible.

The monitor can display NTSC, PAL, SECAM and NTSC² signals. The appropriate color system is selected automatically.

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, ensuring video quality.

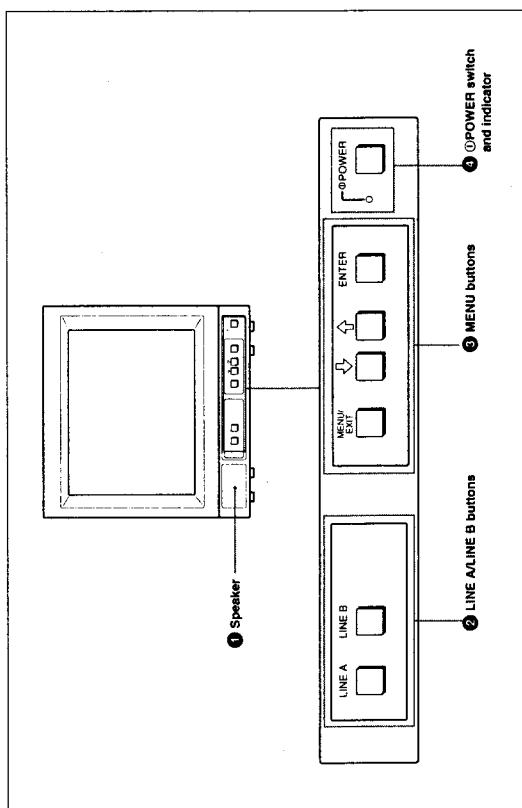
The input connector is terminated at 75 ohms inside when no cable is connected to the loop-through output connector. When a cable is connected to an output connector, the 75-ohm termination is automatically released.

1) Trinitron
"Trinitron" is a registered trademark of Sony Corporation.

2) NTSC²
The NTSC² system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43MHz. When an NTSC recorded video program is played back with a Trident (PAL/SECAM/NTSC²) VTR, the NTSC² signal is output.

Location and Function of Parts and Controls

Front



① Speaker

Press to make the menu appear.

For detailed information on MENU buttons, see "Operation through On-Screen Menus" on page 10.

② LINE A/LINE B (input select) buttons

Press to select the program to be monitored.

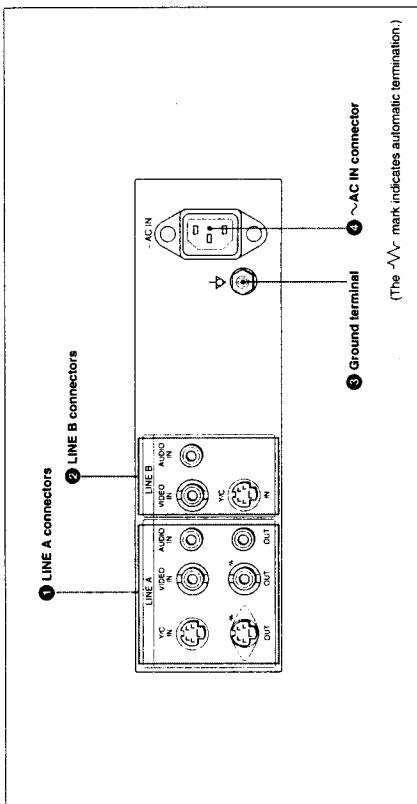
Input signal	Press
Signal fed through the LINE A connector	LINE A
Signal fed through the LINE B connector	LINE B

③ MENU/EXIT button

Press to turn the monitor on. The indicator lights in green.

To turn the power off, press this again.

Rear Panel



① LINE A connectors

Input connectors for the composite video, Y/C separate video and audio signals and their loop-through output connectors. To monitor the input signal fed through these connectors, press the LINE A button on the front panel.

Note

The Y/C IN connector has priority over the VIDEO IN connector. When connecting the cable to the Y/C IN connector, the Y/C IN connector is automatically selected and the VIDEO IN connector is disconnected even if the cable is connected.

② LINE B connectors

Connect to the video output connector of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

③ VIDEO OUT T connector (BNC-type)

Loop-through output connector of the VIDEO IN connector. Connect to the video input connector for a VCR or another monitor. When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

④ VIDEO OUT T connector (BNC-type)

Loop-through output connector of the VIDEO IN connector. Connect to the video input connector for a VCR or another monitor.

⑤ AUDIO OUT connector (phono jack)

Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

⑥ Y/C IN connector (4-pin mini-DIN)

Loop-through output of the Y/C IN connector. Connect to the Y/C separate input connector of a VCR or another monitor. When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

② LINE B connectors
Input connectors for the composite video, Y/C separate video and audio signals.
To monitor the input signal fed through these connectors, press the LINE B button on the front panel.

Y/C IN connector (4-pin mini-DIN)

Connect to the Y/C separate output connector of a video camera, VCR or other video equipment.

VIDEO IN connector (BNC-type)

Connect to the video output connector of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

AUDIO IN connector (phone jack)

Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

③ Ground (⏚) terminal

Connect a GND cable.

④ ~AC IN (inlet) connector

Connect the supplied AC power cord to this connector and to a wall outlet.

You can make various settings and adjustments of the monitor using the on-screen menus.

On-Screen Menu Configuration

The on-screen menu is composed of the following two menu types.

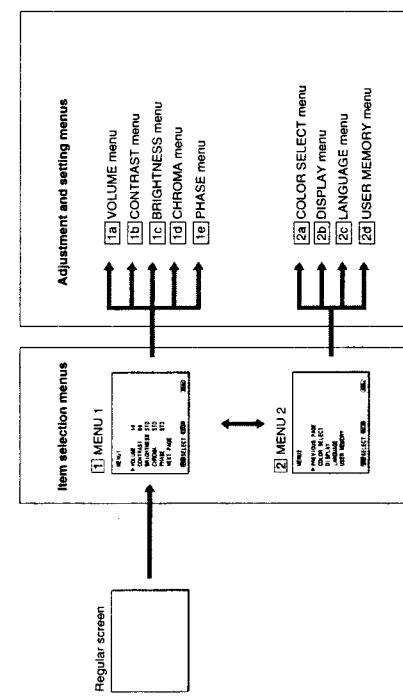
Item selection menu

You can select an adjustment and setting item such as sound volume, contrast, brightness, color intensity, color system and menu language by using the **↑**, **↓** and **ENTER** buttons.

Adjustment and setting menus

You can make desired adjustments or setting on corresponding menu. The settings and adjustments remain unchanged until next adjustment even if you turn off the power.
To reset the settings and adjustments to the factory-settings, select 'FACTORY PRESET' from **USER MEMORY** menu.

On-screen menu tree-chart



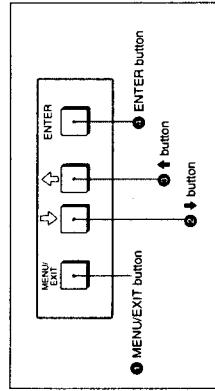
Using On-Screen Menus

Operation through On-Screen Menus

Usable buttons depend on the displayed menu. Buttons that can be used on the menu are displayed at the bottom line of the screen. You can perform menu operation using displayed buttons.

Menu operation buttons

There are four menu operation buttons on the front panel of the monitor.



Operating procedures

To display the menu, follow this procedure.

1 Press the MENU/EXIT (①) button.

① MENU 1 appears.

To select items other than ones not displayed on MENU 1
Select ② MENU 2.

For details of how to select, see the "To change the item selection menus" described later.

2 Move the cursor to the desired item by pressing the ② or ③ button.

② To move the cursor downward.

③ To move the cursor upward.

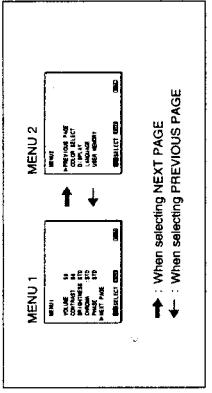
② ENTER To decide a selected item.

③ Press the ENTER (②) button.
The adjustment and setting menu selected in step 2 appears.

2) You can use the ENTER button only on the [USER MEMORY] menu of the adjustment and setting menus.

For detailed information of menus, see "Functions of On-Screen Menus" on page 11.

To change the item selection menus
Select 1 NEXT PAGE on the menu to display next item selection menu and PREVIOUS PAGE on the menu to display the previous item selection menu.



How to change the item selection menu

To return to the item selection menu from the adjustment and setting menus
Press the MENU/EXIT (①) button on the currently displayed adjustment and setting menu.

To close the menu (to return to the regular screen)
Press the MENU/EXIT (①) button when the item selection menu is displayed. The on-screen menu disappears and the regular screen appears.

Adjustment and setting menu

1a VOLUME menu (Factory setting: 50)



① VOLUME 10
② 20
③ 30
④ 40
⑤ 50
⑥ 60
⑦ 70
⑧ 80
⑨ 90
⑩ 100

Adjust the speaker volume.
The volume increases by pressing the ② button.
The volume decreases by pressing the ③ button.

1b CONTRAST menu (Factory setting: 80)



① CONTRAST 10
② 20
③ 30
④ 40
⑤ 50
⑥ 60
⑦ 70
⑧ 80
⑨ 90
⑩ 100

Adjust the contrast of the screen.
The contrast becomes higher by pressing the ② button.
The contrast becomes lower by pressing the ③ button.

Using On-Screen Menus

1c BRIGHTNESS menu (Factory setting: STD)



Adjust the brightness of the screen.
The screen becomes brighter by pressing the **↑** button.
The screen becomes darker by pressing **↓** button.

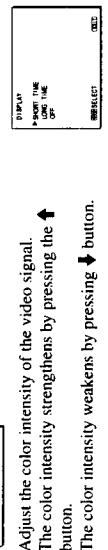
1d CHROMA menu (Factory setting: STD)



Select the color system of the input signal.
AUTO: Input color systems are automatically selected.

When you input NTSC signal, comb filter will activate. To monitor NTSC signal with trap filter, select NTSC in this menu.

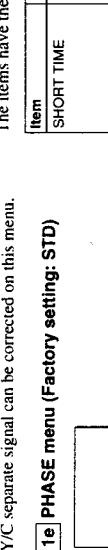
2b DISPLAY menu (Factory setting: SHORT TIME)



Select the period of displaying the color system of the current input signals.

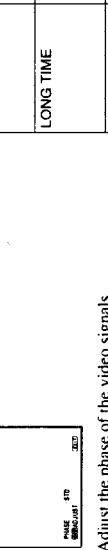
The items have the following functions.

1e PHASE menu (Factory setting: STD)



The color intensity of an composite video signal or a Y/C separate signal can be corrected on this menu.

2c LANGUAGE menu (Factory setting: ENGLISH)

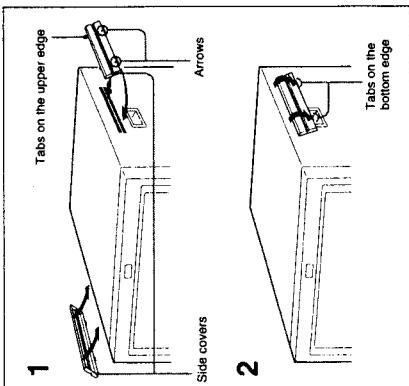


Adjust the phase of the video signals.
The skin tone becomes greenish by pressing the **↑** button.
The skin tone becomes purplish by pressing the **↓** button.

Note
The phase of an NTSC composite video signal or a Y/C separate signal can be corrected on this menu. The PAL composite video signal or a Y/C separate signal cannot be corrected.

Select the menu language among the five languages, English, German, French, Italian and Spanish.

Attaching the Side Covers



Arrows
Side covers
2
Tabs on the upper edge
Tabs on the bottom edge
Arrows
Side covers

In order to protect the ventilation holes from splashes from medicines, etc., attach the supplied side covers as illustrated.

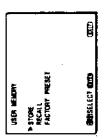
1 Hook the tabs on the upper edge into the ventilation holes, making sure that the arrows on the cover are facing down.

Note
Attach the side covers on all ventilation holes.

2 Push up the tabs on the bottom edge and fit the cover into the lowest ventilation holes.

Attach covers on both left and right vents.

2d USER MEMORY menu

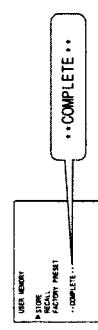


The items have the following functions.

Item	Function
STORE	To store all adjustments and settings currently set on each menu into the internal memory.
RECALL	To recall all adjustments and settings currently stored in the internal memory.
FACTORY RESET	To reset the adjustments and settings currently set on each menu to the factory settings. ^a

a) The current settings and adjusted values are reset to the factory settings. The values and settings adjusted and stored in the internal memory by using the STORE menu, however, are not changed. To reset internally stored adjusted values and settings to the factory setting, select FACTORY RESET, first, then select STORE.

When you press the ENTER (●) button, the following message is displayed for about two seconds. The currently selected item becomes active when pressing the ENTER (●) button.



Using the Last Control Function

If you press the **↑** or **↓** button when the menu is not displayed, one of the following menu items that you adjusted last time is displayed.

- VOLUME
- CONTRAST
- BRIGHTNESS
- CHROMA
- PHASE

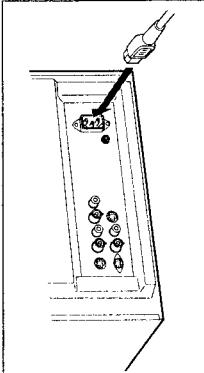
Then you can adjust the item immediately.

Connections

Specifications

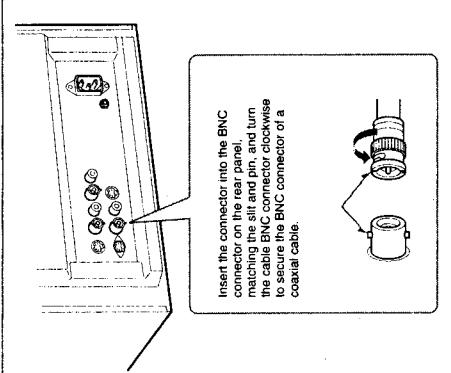
How to Connect the AC Power Cord

Connect the AC power cord (supplied) to the ~AC IN connector and to a wall outlet.



How to Connect a Cable to a BNC Connector

Connect the coaxial cable with the BNC connectors to the BNC connectors on the rear panel as illustrated below.



Video signal

Color system NTSC, PAL, SECAM, NTSC-C,⁴³

Horizontal Resolution 500 TV lines

Frequency response LINE 6 MHz±3dB (Y signal)

Picture performance

Normal scan 7 % over scan of CRT effective screen area

H. linearity Less than 8.0 % (typical)

V. linearity Less than 7.0 % (typical)

Color temperature D65

Inputs

LINE A/B

Y/C IN

4-pin mini-DIN(x2)
See the pin assignment on the next page.

VIDEO IN BNC connector (x2), 1V p-p +3 dB,

AUDIO IN -6 dB, sync negative

Phono jack (x2), -5 dBu^a, more

than 47 kilo-ohms

a) 0 dBu = 0.775 Vr.m.s.

Outputs

LINE A Y/C OUT 4-pin mini-DIN (x1) loop-through, Automatic 75 ohms termination

VIDEO OUT BNC connector (x1) loop-through, Automatic 75 ohms termination

AUDIO OUT Phono jack (x1) loop-through

Speaker output

Output level: 0.8 W

General

Classification of equipment
– Type of protection against electric shock: Class I

* Standard evaluated to:
EN 60 601-1, EN60 601-1-2
CSA C22.2 No.601.1
UL 2601-1

– Degree of protection against harmful ingress of water: Ordinary equipment

– Degree of safety of application in the presence of a flammable anaesthetic mixture: Not protected equipment

– Mode of operation: Continuous operation

– Information concerning type and frequency of technical maintenance: Not need maintenance equipment

– Main power switch: Functional switch

CRT 14-inch CRT with P-22 phosphor

Visible picture size 332 mm
(13-inch measured diagonally)

Power consumption 80W

Power requirements 100 to 240 V AC, 50/60 Hz
1.2 - 0.6 A

Operating conditions

Temperature 0 to +40°C

Humidity 30 to 85% (no condensation)

Pressure 700 to 1060 hPa

Transport and Storage conditions

Temperature -10 to +40°C

Humidity 0 to 90%

Pressure 700 to 1060 hPa

Dimensions (w/h/d) 346 × 340 × 414 mm
(13 3/8 × 13 1/2 × 16 5/8 inches)

Mass Approx. 15 kg (33 lb 1 oz)

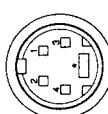
Accessory supplied AC power cord (1)

Side covers (2)

Instructions for Use (1)

Pin assignment

Y/C IN connector (4-pin mini-DIN)



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA subcarrier-input	0.256 Vp-p (NTSC), 300mVp-p (PAL), burst delay time between Y and C, within 0 ± 100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA input	GND

Design and specifications are subject to change without notice.

Troubleshooting

This section may help you isolate the problem. Should the problem persist, unplug the unit and contact your Sony dealer or local authorized Sony service facility.

Symptom	Possible causes and remedies
If colors are not accurately reproduced	The monitor input signal is deviated from the color system specifications (i.e. signals from VCRs). Proceed as follows to correct this phenomenon. 1 Confirm the color system of the input signal. 2 Select the same color system as that of the input signal on the COLOR SELECT menu. If the problem remains unsolved after corresponding color system is selected, briefly turn OFF the power, then turn ON the monitor again.

SONY.

3-864-152-11(2)

1-3. SSM-14N5 (A/E/U), SSM-20N5 (A/E/U)

Trinitron® Color Video Monitor

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Trinitron

**SSM-14N5E/14N5U/14N5A
SSM-20N5E/20N5U/20N5A**

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Precaution

Table of Contents

Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____
Serial No. _____

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHTED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow: Earth
Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \pm or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Ensure that your equipment is connected correctly - If you are in any doubt consult a qualified electrician.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

On safety

- Operate the unit only with a power source as specified in "specifications" section.
- The nameplate indicating operating voltage, power consumption, etc. is located on the rear.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Do not drop or place heavy objects on the power cord. If the power cord is damaged, turn off the power immediately. It is dangerous to use the unit with a damaged power cord.
- Unplug the unit from the wall outlet if it is not to be used for several days or more.
- Disconnect the power cord from the AC outlet by grasping the plug, not by pulling the cord.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

On installation

ATTENTION:

Picture distortion may occur if this monitor is positioned in close proximity to any equipment emitting electromagnetic radiation.

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On cleaning

To keep the unit looking brand-new, periodically clean it with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since they will damage the cabinet. As a safety precaution, unplug the unit before cleaning it.

On repacking

Do not throw away the carton and packing materials. They make an ideal container which to transport the unit. If you have any questions about this unit, contact your authorized Sony dealer.

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Connections 7	How to Connect the AC Power Cord 7
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About this manual
Before operating the unit, please read this manual thoroughly and retain it for future reference.

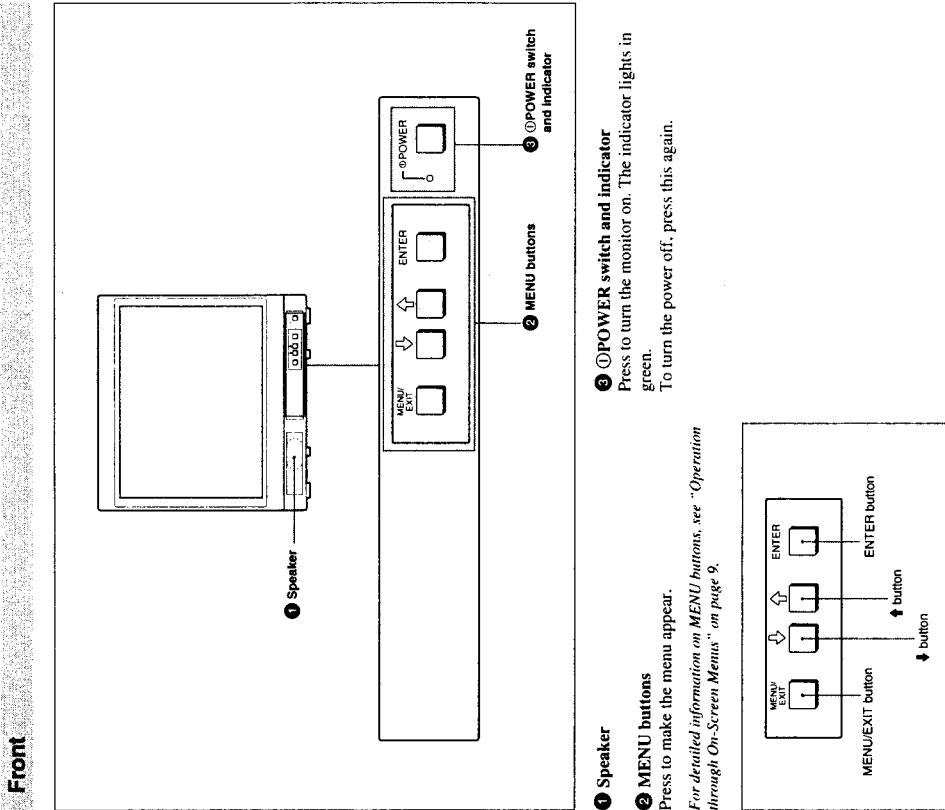
The explanation given in this manual can be applied to the following models unless noted otherwise. When explanation differs among models, this is clearly indicated in this manual.

- SSM-14NSE/14NSU/14NSA (14-inch monitor)
- SSM-20NSE/20NSU/20NSA (20-inch monitor)
- Illustrations of the video monitor are for the SSM-20NSE/20NSU/20NSA.

Features

Location and Function of Parts and Controls

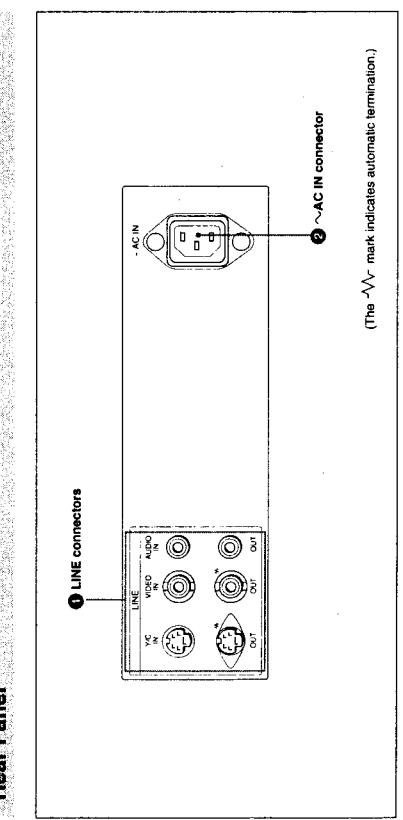
Picture	Functions
Fine pitch Trinitron¹⁾ picture tube The fine pitch Trinitron tube provides a high resolution picture. Horizontal resolution is more than 500 TV lines at the center of the picture.	On-screen menus You can set monitor operation settings by using the on-screen menus.
Comb filter When NTSC video signals are received, a comb filter activates to make more accurate Y/C separation. This contributes to less of a decrease in resolution, cross color and cross luminance phenomena.	EIA standard 19-inch rack mounting By using an MB-502B mounting bracket (for a 14-inch monitor, not supplied) or SLR-103A slide rail (for a 20-inch monitor, not supplied), the monitor can be mounted in an EIA standard 19-inch rack.
Beam current feedback circuit The built-in beam current feedback circuit assures stable white balance.	Attention – when the product is installed in a rack: <ul style="list-style-type: none"> • Elevated operating ambient temperature If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature of 0 to +35 °C. (T_{max}). • Reduced air flow Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
Four color system available The monitor can display NTSC, PAL, SECAM, and NTSC _{4.43} ²⁾ signals. The appropriate color system is selected automatically.	<ul style="list-style-type: none"> • Mechanical loading Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading. • Circuit overloading Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern. • Reliable earthing Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).
Input	Y/C input connector The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, ensuring video quality.
Automatic termination (connector with $\wedge\vee$ mark only)	The input connector is terminated at 75 ohms inside when no cable is connected to the loop-through output connector. When a cable is connected to an output connector, the 75-ohm termination is automatically released.



1) TrinitronTM is a registered trademark of Sony Corporation.
2) NTSC_{4.43}TM The NTSC_{4.43}TM system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43 MHz. When an NTSC recorded video program is played back with a Trident (PAL/SECAM/NTSC_{4.43}) VTR, the NTSC_{4.43} signal is output.

Location and Function of Parts and Controls

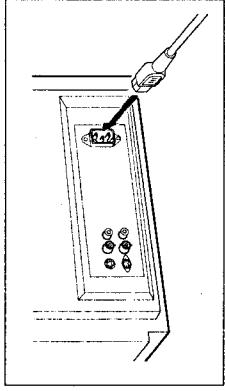
Rear Panel



Connections

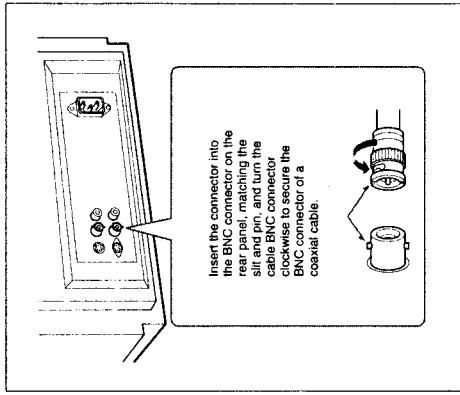
How to Connect the AC Power Cord

Connect the AC power cord (supplied) to the ~AC IN connector and to a wall outlet.



How to Connect a Cable to a BNC Connector

Connect the coaxial cable with the BNC connectors to the BNC connectors on the rear panel as illustrated below.



Using On-Screen Menus

You can make various settings and adjustments of the monitor using the on-screen menus.

On-Screen Menu Configuration

The on-screen menu is composed of the following two menu types.

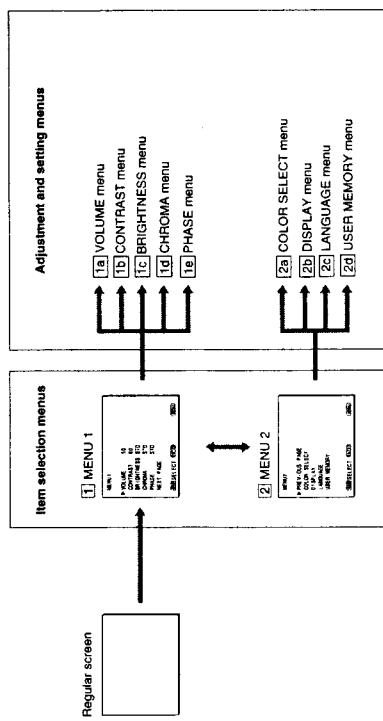
Adjustment and setting menus

You can make desired adjustment or setting on corresponding menu. The settings and adjustments remain unchanged until next adjustment even if you turn off the power.

To reset the settings and adjustments to the factory settings, select "FACTORY PRESET" from **[2] USER MEMORY** menu.

Item selection menu
You can select an adjustment and setting item such as sound volume, contrast, brightness, color intensity, color system and menu language by using the **↑ ↓** and **ENTER** buttons.

On-screen menu tree-chart

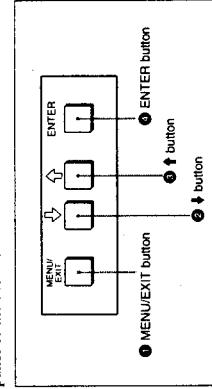


Operation through On-Screen Menus

Usable buttons depend on the displayed menu. Buttons that can be used on the menu are displayed at the bottom line of the screen. You can perform menu operation using displayed buttons.

Menu operation buttons

There are four menu operation buttons on the front panel of the monitor.



Operating procedures

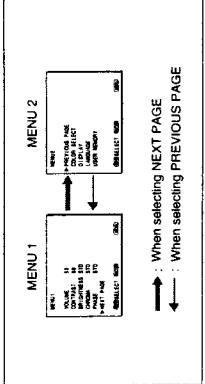
To display the menu, follow this procedure.

- 1 Press the MENU/EXIT (①) button.
① MENU 1 appears.
To select items other than ones not displayed on MENU 1
Select ② MENU 2.
For details of how to select, see the "To change the item selection menus", described later.
- 2 Move the cursor to the desired item by pressing the ↓ or ↑ (②, ③) button.
- 3 Press the ENTER (④) button.
The adjustment and setting menu selected in step 2 appears.

For detailed information of menus, see "Functions of On-Screen Menus" on page 10.

Using On-Screen Menus

To change the item selection menu
Select NEXT PAGE on the menu to display next item selection menu and PREVIOUS PAGE on the menu to display the previous item selection menu.



To return to the item selection menu from the adjustment and setting menu
Press the MENU/EXIT (1) button on the currently displayed adjustment and setting menu.

To close the menu (to return to the regular screen)
Press the MENU/EXIT (1) button when the item selection menu is displayed. The on-screen menu disappears and the regular screen appears.

Using the Last Control Function
If you press the **↑** or **↓** button when the menu is not displayed, one of the following menu items that you adjusted last time is displayed.

- VOLUME
- CONTRAST
- BRIGHTNESS
- CHROMA
- PHASE

Then you can adjust the item immediately.

Adjustment and setting menu
Adjust the speaker volume.

The volume increases by pressing the **↑** button.

The volume decreases by pressing the **↓** button.

The skin tone becomes greenish by pressing the **↑** button.

The skin tone becomes purplish by pressing the **↓** button.

Note

The phase of an NTSC composite video signal or a Y/C separate signal can be corrected on this menu. The PAL composite video signal or a Y/C separate signal cannot be corrected.

Functions of On-Screen Menus

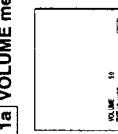
Item selection menus

1 MENU 1	
Item	Function
VOLUME	To obtain the desired volume
CONTRAST	To adjust the contrast
BRIGHTNESS	To adjust the brightness
CHROMA	To adjust the color intensity
PHASE	To adjust the phase

2 MENU 2	
Item	Function
COLOR SELECT	To select the color system of the input signal
DISPLAY	To select period of display
LANGUAGE	To select the menu language
USER MEMORY	To store and recall the values and settings adjusted by a user, and recall the factory-settings

Adjustment and setting menu

1a VOLUME menu (Factory setting: 50)



Adjust the speaker volume.
The volume increases by pressing the **↑** button.
The volume decreases by pressing the **↓** button.

The skin tone becomes greenish by pressing the **↑** button.

The skin tone becomes purplish by pressing the **↓** button.

2a COLOR SELECT menu (Factory setting: AUTO)
(Factory setting: AUTO)

Select the menu language among the five languages, English, German, French, Italian and Spanish.

Note

The phase of an NTSC composite video signal or a Y/C separate signal can be corrected on this menu. The PAL composite video signal or a Y/C separate signal cannot be corrected.

2b CONTRAST menu (Factory setting: 80)

(Factory setting: 80)

Select the color system of the input signal.

AUTO: Input color systems are automatically selected. When you input NTSC signal, comb filter will activate. To monitor NTSC signal with trap filter, select NTSC in this menu.

The factory setting of the COLOR SELECT menu depends on destination.

SSM-14N5U/20N5U: NTSC

SSM-14N5E/20N5E/14N5A/20N5A: PAL

2c BRIGHTNESS menu (Factory setting: STD)

(Factory setting: STD)

Select the period of displaying the color system of the current input signals.

The items have the following functions.

2d DISPLAY menu (Factory setting: SHORT TIME)

(Factory setting: SHORT TIME)

Select the kind of color system being used for several seconds on the screen each time you change the signal input.

LONG TIME

To display the kind of color system being used for approximately five minutes on the screen each time you change the signal input.

OFF

Not to display the kind of the color system.

2e PHASE menu (Factory setting: STD)

(Factory setting: STD)

Select the phase of the video signals.

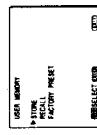
The skin tone becomes greenish by pressing the **↑** button.

The skin tone becomes purplish by pressing the **↓** button.

Using On-Screen Menus

Troubleshooting

2d USER MEMORY menu

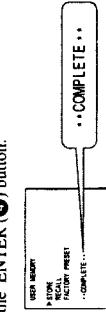


The items have the following functions.

Item	Function
STORE	To store all adjustments and settings currently set on each menu into the internal memory.
RECALL	To recall all adjustments and settings currently stored in the internal memory.
FACTORY PRESET	To reset the adjustments and settings currently set on each menu to the factory settings. ^{a)}

a) The current settings and adjusted values are reset to the factory settings. The values and settings adjusted and stored in the internal memory by using the STORE menu, however, are not changed. To reset internally stored adjusted values and settings to the factory setting, select FACTORY PRESET first, then select STORE. The color system of the input signal is reset to AUTO even though the factory setting on the COLOR SELECT menu is NTSC or PAL.

When you press the ENTER (④) button, the following message is displayed for about two seconds. The currently selected item becomes active when pressing the ENTER (④) button.



This section may help you isolate the problem. Should the problem persist, unplug the unit and contact your Sony dealer or local authorized Sony service facility.

Symptom	Possible causes and remedies
If the picture is unstable, when the input signal from a security camera is switched	Select NTSC on the COLOR SELECT menu when the NTSC signal is input. Select PAL when the PAL signal is input.

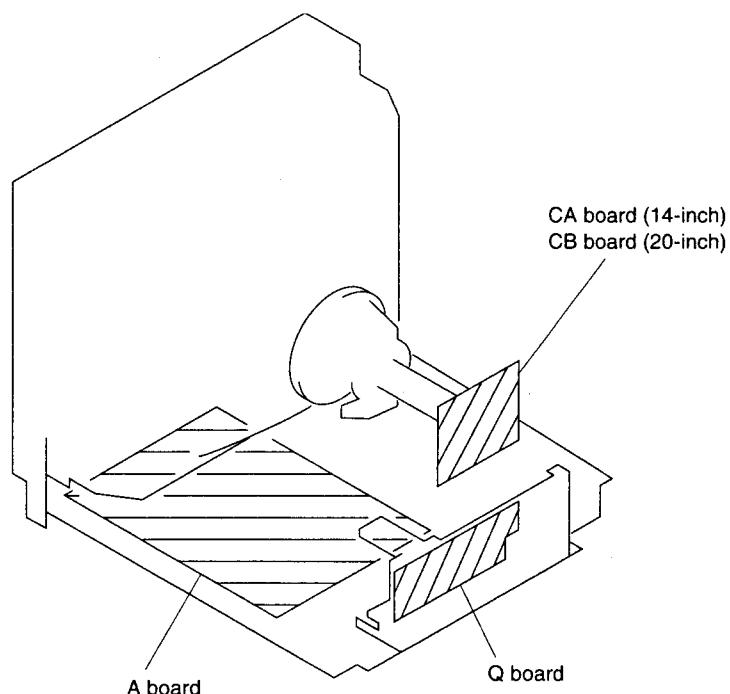
Specifications

Video signal	NTSC, PAL, SECAM, NTSC. ^{a)} 500 TV lines	Power requirements 100 to 240 V AC, 50/60 Hz "For use of SSM-14NSU/20NSU". operate these monitors on 120 V AC.
Color system		Operating conditions Temperature 0 to +35°C Humidity 0 to 90% (no condensation)
Resolution		Transport and Storage conditions Temperature -10 to +40°C Humidity 0 to 90%
Frequency response	LINE 6 MHz±3dB (Y signal)	Dimensions (w/h/d) SSM-14NSE/14NSU/14NSA: 346 x 340 x 41.4 mm (13 3/8 x 13 3/8 x 16 1/8 inches) SSM-20NSE/20NSU/20NSA: 449 x 441 x 502 mm (17 1/2 x 17 1/2 x 19 1/2 inches)
Picture performance	Normal scan 7% over scan of CRT effective screen area H. linearity Less than 8.0 % (typical) V. linearity Less than 7.0 % (typical) Color temperature D65	Mass SSM-14NSE/14NSU/14NSA: Approx. 15.8 kg (33 lb 1 oz) SSM-20NSE/20NSU/20NSA: Approx. 28 kg (61 lb 1 oz) Accessory supplied AC power cord (1) Operating Instructions (1)
Inputs	LINE Y/C IN 4-pin mini-DIN (x1) See the pin assignment on this page.	5
	VIDEO IN BNC connector (x1), 1 Vp-p +3 dB, -6 dB, sync negative	
	AUDIO IN Phono jack (x1), -5 dBu ^{a)} , more than 47 kilo-ohms	
	a) 0 dBu = 0.775 Vrms.	
Outputs	Y/C IN connector (4-pin mini-DIN)	
LINE Y/C OUT	4-pin mini-DIN (x1) loop-through. Automatic 75 ohms termination	
VIDEO OUT	BNC connector (x1) loop-through. Automatic 75 ohms termination	
AUDIO OUT	Phone jack (x1) loop-p-through Speaker output Output level: 0.8 W	
General		
CRT	SSM-14NSE/14NSU/14NSA: 14.1-inch CRT with P-22 phosphor visible picture size: 340 mm (13.3-inch measured diagonally) SSM-20NSE/20NSU/20NSA: 20.1-inch CRT with P-22 phosphor visible picture size: 390 mm (19.1-inch measured diagonally)	Design and specifications are subject to change without notice.
Power consumption	SSM-14NSE/14NSU/14NSA: 80W SSM-20NSE/20NSA: 100 W SSM-20NSU: 105W	

SECTION 2

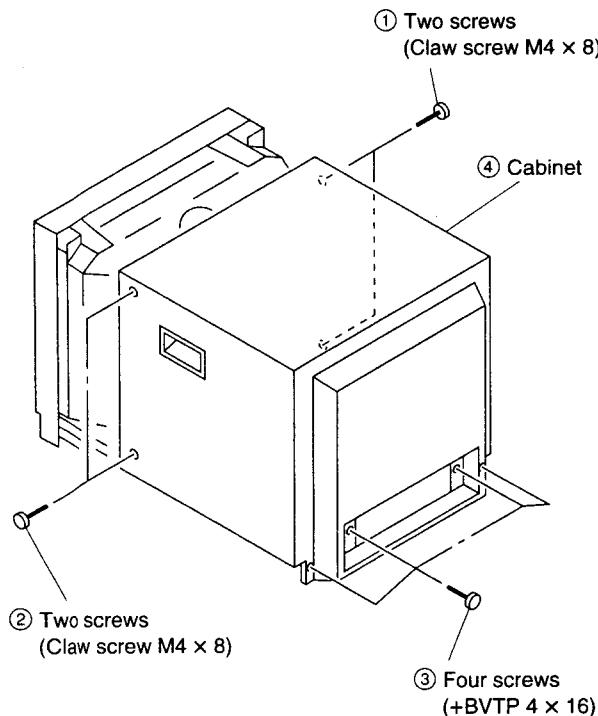
SERVICE INFORMATION

2-1. CIRCUIT BOARDS LOCATION

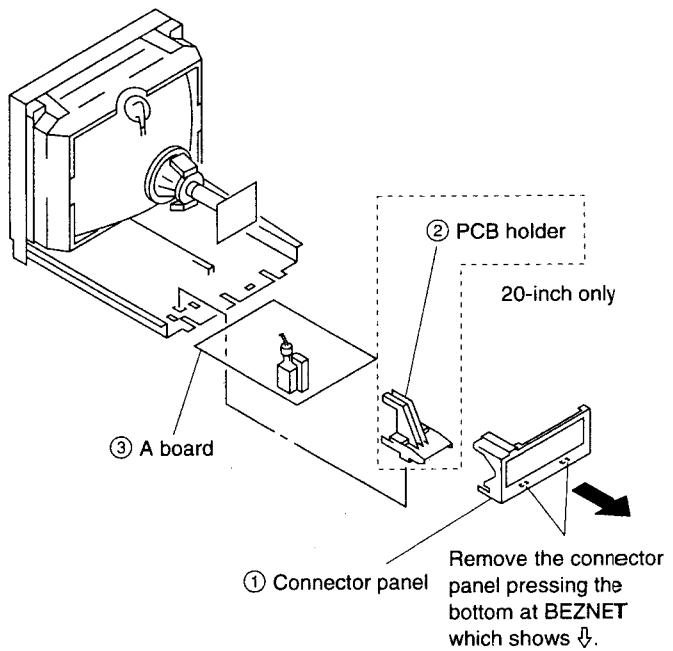


2-2. DISASSEMBLY

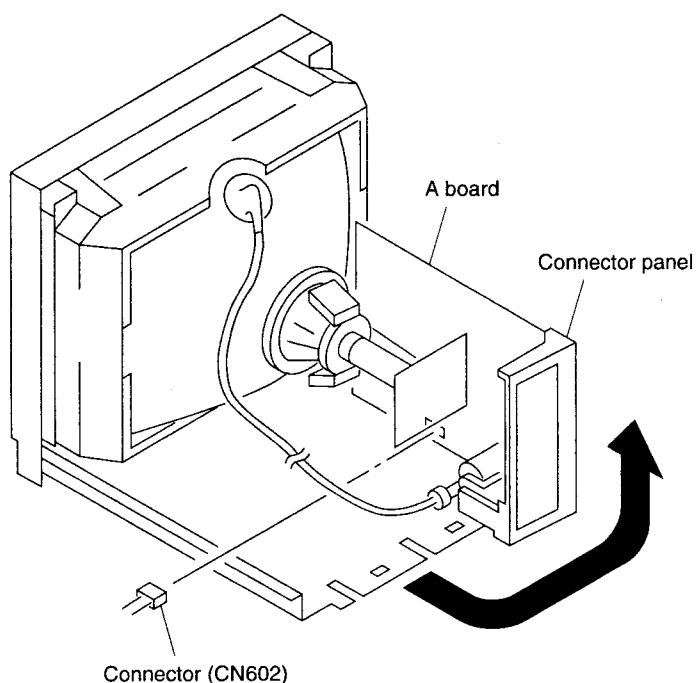
2-2-1. Cabinet Removal



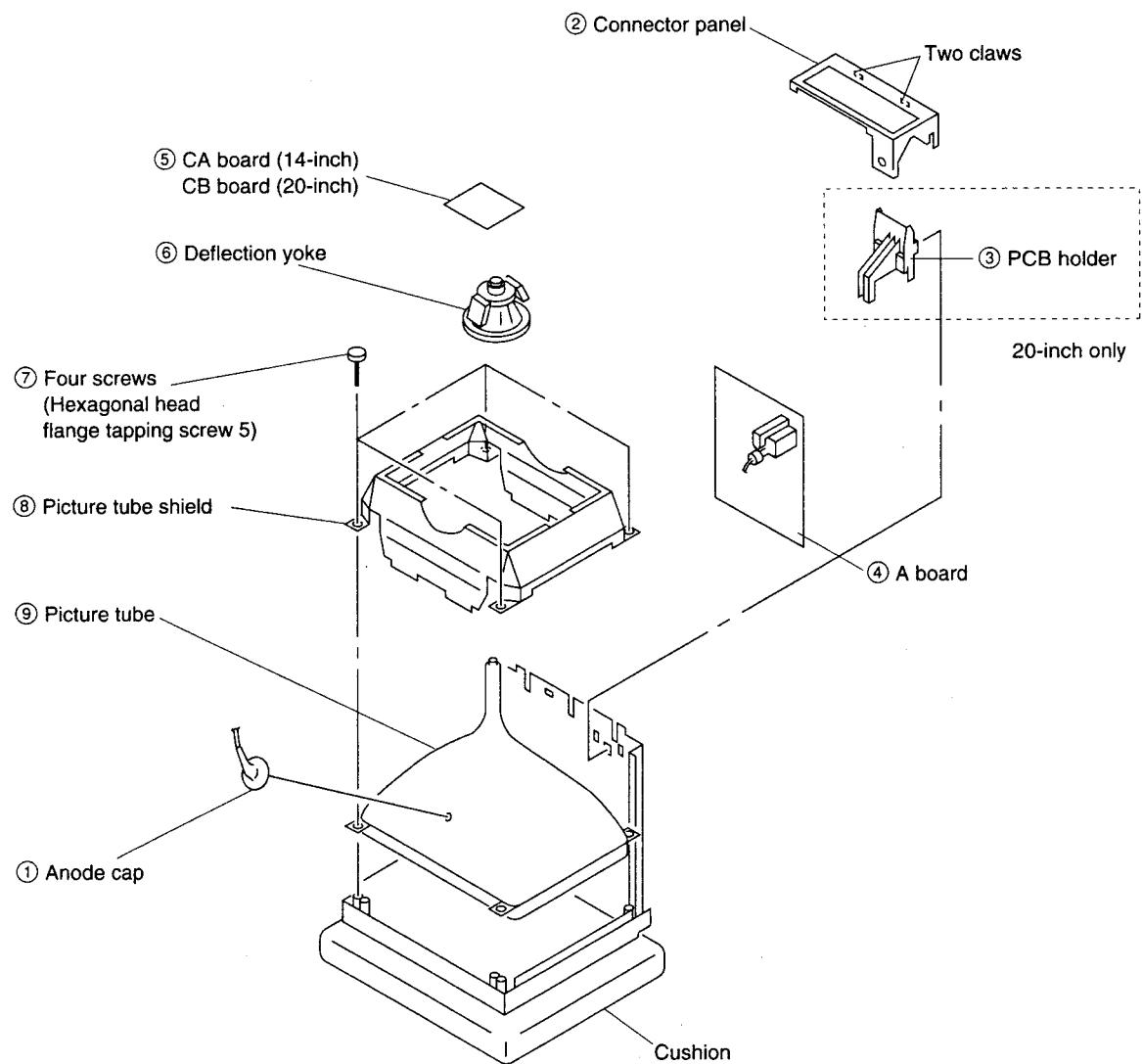
2-2-2. A Board Removal



2-2-3. Service Position



2-2-4. Picture Tube Removal

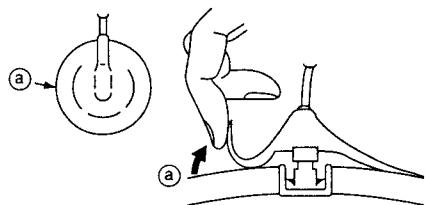


2-2-5. Removal of Anode-cap

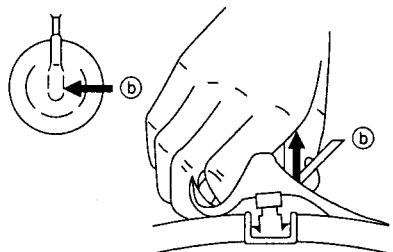
Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, picture tube shield or carbon painted on the picture tube, after removing the anode.

1. Removing Procedures

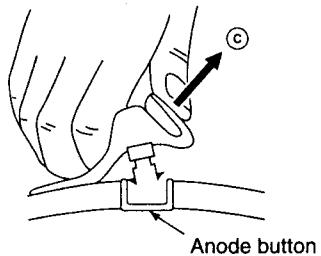
(1) Turn up one side of the rubber cap in the direction indicated by the arrow (a).



(2) Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b).



(3) When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).



2. Handling Precautions

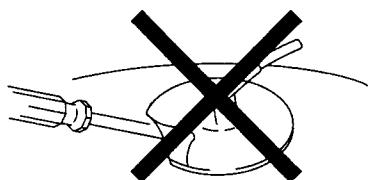
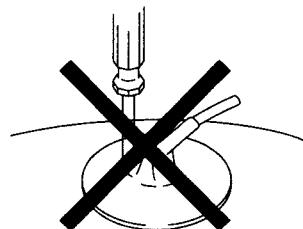
(1) Don't hurt the surface of anode-caps with sharp shaped material!

(2) Don't press the rubber hardly not to hurt inside of anode-caps!

A material fitting called as shatter-hook terminal is built in the rubber.

(3) Don't turn the foot of rubber over hardly!

The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3

SET-UP ADJUSTMENTS

3-1. PREPARATIONS (1)

Tools required

- Oscilloscope
- Digital multimeter
- Degausser
- Video signal generator
- Variable AC power supply (or NF power supply)
- DC power supply
- Ammeter

Note: Perform the following adjustments 5 minutes after turning on the power.

Service Mode

This unit is provided with a service switch on the front panel for various servicing adjustments. The following describes how to use the switch.

1. Setting the Service Mode

With no menus displayed, press the **ENTER** and **MENU** keys simultaneously. When Ver*** is displayed on the screen, press the **ENTER** key twice.

2. Displaying the Service Mode

(4)		
(1)		(2)
(3)		

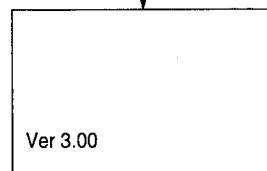
Range of Service Mode Displays

- (1) Serial number from "0 to 102" given to each service item.
- (2) Name of service item.
- (3) Adjustment data of the service item memorized in the RAM currently. Changing this value enables adjustments. Take note that if the adjustment values are not saved in the EPROM, they will be lost when the power is turned off or when the input is switched.
- (4) Guidance on saving.

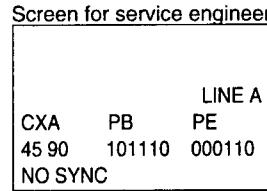
Service Mode Screens

With no menus displayed state

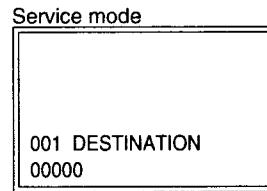
Press the **MENU** and **ENTER** keys simultaneously.



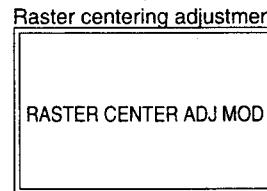
Press the **ENTER** key once.



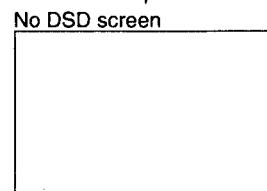
Press the **ENTER** key once.



Press the **ENTER** key once.



Press the **ENTER** key once.



Press the **ENTER** key once.

Note: Use the double solid lined screens () when servicing.

3. Exiting the Service Mode

To exit the service mode, switch to the raster center adjustment mode, and press the **ENTER** and **MENU** keys simultaneously.

4. Moving to the Desired Service Item

To go back to a previous service item, use the **MENU** + **↑** keys. To forward to a service item in front, use the **MENU** + **↓** keys. Pressing these keys continuously will move the cursor continuously.

5. Changing the Service Data

The adjustment data increases when the **↑** key is pressed and decreases when the **↓** key is pressed. Pressing these keys continuously will increase or decrease the value continuously.

6. Writing the Service Data

To write the data from the RAM to the EEPROM, press the **MENU** and **ENTER** keys once, check that **SAVE** is displayed at Guidance, and then press the **MENU** and **ENTER** keys again. Take note that when **SAVE** is displayed at Guidance, the items displayed as well as all data will be written.

7. Setting the Raster Centering Adjustment Mode

Press the **ENTER** key another time in the service mode.

Service Items of EEPROM Data

No.	String	Default Data	
		14-inch	20-inch
1	DESTINATION	U/C: 1 AEP: 2 AUS: 3	U/C: 1 AEP: 2 AUS: 3
2	SHARP LEVEL	4	4
3	SHARP F0	1	1
4	PRE/OVER SHOOT	0	0
5	Y DLY NTSC COMB	4	4
6	Y DLY NTSC CVBS	4	4
7	Y DLY NTSC Y/C	4	4
8	Y DLY NT443 CVBS	4	4
9	Y DLY NT443 Y/C	4	4
10	Y DLY PAL CVBS	4	4
11	Y DLY PAL Y/C	4	4
12	Y DLY SECAM CVBS	4	4
13	Y DLY SECAM Y/C	4	4
14	Y DLY PAL-M CVBS	4	4
15	Y DLY PAL-M Y/C	4	4
16	CHROMA CENT	31	31
17	PH CENT NTSC COMB	33	33
18	PH CENT NTSC CVBS	31	31
19	PH CENT NTSC Y/C	31	31
20	PH CENT NT443CVBS	33	33
21	PH CENT NT443 Y/C	35	35
22	C BPF NTSC COMB	1	1
23	C BPF NTSC CVBS	1	1
24	C BPF NTSC Y/C	0	0
25	C BPF NT443 CVBS	1	1
26	C BPF NT443 Y/C	0	0
27	C BPF PAL CVBS	1	1
28	C BPF PAL Y/C	0	0
29	C BPF SECAM CVBS	1	1
30	C BPF SECAM Y/C	0	0
31	C BPF PAL-M CVBS	1	1
32	C BPF PAL-M Y/C	0	0
33	SUB BRT CVBS	33	33
34	SUB BRT RGB	33	33
35	SECAM ID START	1	1
36	SECAM ID STOP	2	2
37	*SECAM BELL F0	33	33
38	SECAM ID LEVEL	3	3
39	C/O R ROUGH	3	3
40	C/O G ROUGH	3	3

No. String	Default Data	
	14-inch	20-inch
41 C/O B ROUGH	3	3
42 *C/O OFFSET CVBS	28	49
43 *C/O R FINE CVBS	26	21
44 *C/O G FINE CVBS	31	31
45 *C/O B FINE CVBS	31	29
46 *DRV ALL CVBS	No. 47, 48 and 49 are displayed.	
47 *DRV R CVBS	42	31
48 *DRV G CVBS	36	23
49 *DRV B CVBS	19	11
50 *C/O OFFSET SECAM	29	50
51 *C/O R FINE SECAM	11	11
52 *C/O G FINE SECAM	31	31
53 *C/O B FINE SECAM	24	23
54 *DRV ALL SECAM	No. 55, 56 and 57 are displayed.	
55 *DRV R SECAM	41	31
56 *DRV G SECAM	36	23
57 *DRV B SECAM	19	11
58 *C/O OFFSET RGB	40	49
59 *C/O R FINE RGB	30	29
60 *C/O G FINE RGB	31	31
61 *C/O B FINE RGB	33	32
62 *DRV ALL RGB	No. 63, 64 and 65 are displayed.	
63 *DRV R RGB	44	39
64 *DRV G RGB	38	33
65 *DRV B RGB	19	15
66 H OSC F0	7	7
67 H MASK	1	1
68 H SYNC SEP	0	0
69 V SYNC SEP	0	0
70 V COUNTDOWN MODE	1	1
71 *H CENT 60HZ CVBS	11	14
72 *H CENT 60HZ RGB	10	12
73 *H CENT 50HZ CVBS	18	21
74 *H CENT 50HZ RGB	13	15
75 *H CENT NTSC COMB	12	14
76 H BLK RGB	0	0
77 H BLK CVBS	1	1
78 H BLK L 60 CVBS	15	15
79 H BLK R 60 CVBS	0	0
80 H BLK L 60 RGB	15	15

No. String	Default Data	
	14-inch	20-inch
81 H BLK R 60 RGB	0	0
82 H BLK L 50 CVBS	15	15
83 H BLK R 50 CVBS	0	0
84 H BLK L 50 RGB	15	15
85 H BLK R 50 RGB	0	0
86 *BOW	7	7
87 *ANGLE	7	7
88 *V CENTER	32	31
89 *V SIZE	22	23
90 *V SIZE 16:9	63	63
91 *VS-CORRECTION	3	5
92 *V LINEARITY	7	6
93 V LIN UPPER	0	0
94 V LIN LOWER	0	0
95 *H SIZE	21	18
96 *H PIN PHASE	5	6
97 *H PIN AMP	27	23
98 *H CORNER PIN	31	34
99 EHT	8	8
100 SEC F0 TIME	0	0
101 SEC F0 DELTA	0	0
102 SEC F0 DELAY	0	0

- The data of signals marked "*" can be changed freely.
- The data of signals without "*" marked is fixed.

3-2. PREPARATIONS (2)

- Set the video signal generator as follows, and input the composite video signal.

Signal	Signal Contents	Standard Level P-W
COMPOSITE VIDEO	NTSC 3.58	100 % WHITE 0.714 V
	NTSC 4.43	75 % WHITE 0.536 V
	BURST (GREEN)	286 mV p-p (632 mV p-p)
	100 % WHITE	0.7 V
PAL SECAM	75 % WHITE	0.525 V
	PAL BURST (GREEN)	300 mV p-p (664 mV p-p)

- shows the name of the adjustment items of the service mode.

Example **H SIZE**

- If adjustments are performed in the service mode, save the service data before turning off the power. Turning off the power before saving the data will cause all adjusted data to be lost.

- Standard inspection state

Unless specified otherwise, set the video signal generator to the following conditions and perform the adjustments and inspections.

VOLUME	50
CONTRAST	80
BRIGHTNESS	STD
CHROMA	STD
PHASE	STD
ASPECT RATIO	4 : 3

3-3. OUTPUTTING IMAGES

Setting the AC Input Voltage

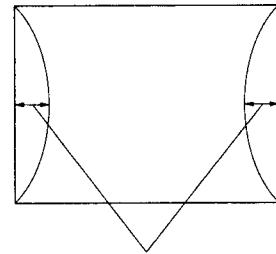
- Input the video signals and audio signals into each terminal of the connector panel.
- Set the voltage of the variable AC power supply to AC100 ±3 V (distortion factor: 3 % or less).

3-4. RASTER CENTERING ADJUSTMENT

- Set the raster center adjustment mode.

Set the service mode according to "Setting the Service Mode", and press the **ENTER** key once to enter the raster center adjustment mode.

- Adjust S501 on the A board so that the raster comes to the horizontal direction center.



Adjust S501 so that the raster comes to the horizontal center.

3-5. LANDING ADJUSTMENT

1. Preparations

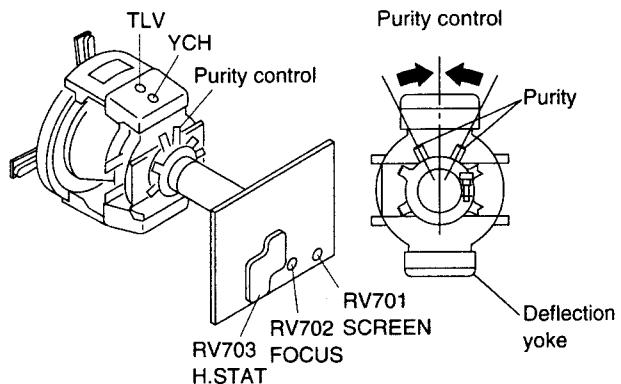
- (1) To reduce geomagnetism effects, face the CRT screen of this to the east or west.
- (2) Loosen the fixture of the deflection yoke, and push back the deflection yoke.
- (3) Turn on the power switch, and degauss with the degausser.
- (4) Adjust the tilt of the deflection yoke.

2. Adjustment

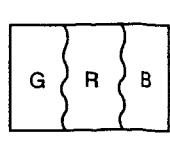
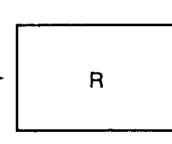
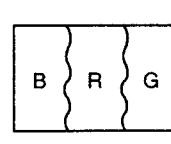
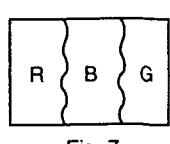
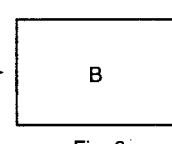
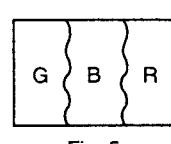
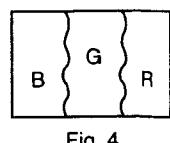
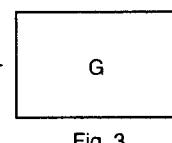
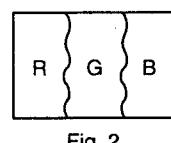
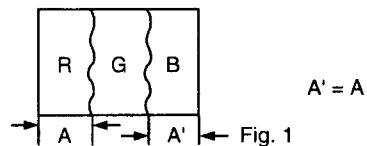
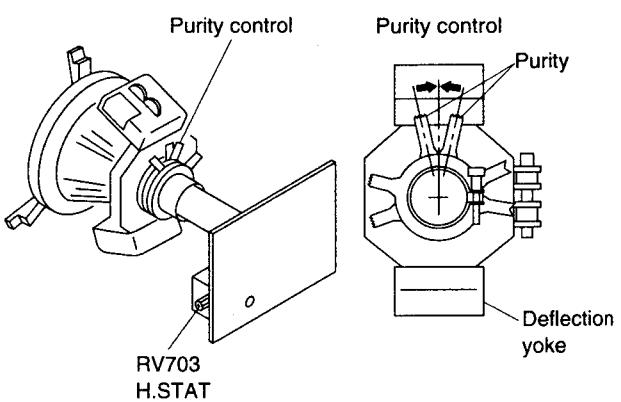
Note: The white balance, G2, and convergence need to be roughly adjusted beforehand.

- (1) Set CONTRAST to MAX.
Set BRIGHTNESS to a position which gives a clear view.
- (2) Set the video signal generator to G (green) only.
- (3) Adjust the purity knob so that G (green) comes to the center of the screen and the R and B widths become more or less the same. (Refer to Fig. 1.)
- (4) Switch the video signal generator to B (blue) only, R (red) only, and G (green) only, check that each color is at the center of the screen. (Refer to Fig. 3, 6, and 9.)
- (5) Bring the deflection yoke forward gradually and adjust it so that the R and B at the both sides of the screen becomes green. (Refer to Fig. 2 and Fig. 3.)
- (6) Moving the deflection yoke forward too much will result in the pattern shown in Fig. 4. In such cases, push back the deflection yoke. (Refer to Fig. 4 and Fig. 3.)
- (7) Switch the video signal generator to B (blue) only, and check the pattern. (Refer to Fig. 6.)
- (8) Switch the video signal generator to R (red) only, and check the pattern. (Refer to Fig. 9.)
- (9) If the landing cannot be obtained in the corners, paste the magnet and perform adjustment.
- (10) Switch to the all white signal and check the uniformity.
- (11) After setting the position of the deflection yoke, secure it with fixture.

14-inch



20-inch



3-6. CONVERGENCE ADJUSTMENT

1. Input the dot pattern signal.

Set CONTRAST to the position at which it can be seen clearly.

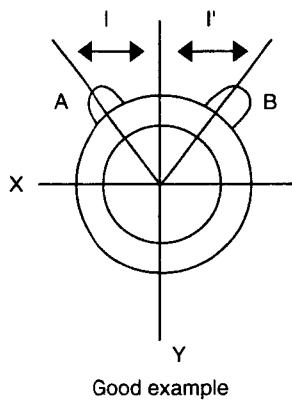
Set BRIGHTNESS to MIN.

2. Align the R, G, B dots in the horizontal direction at the center of the screen using RV703 (H-STAT).

Note: If H-CENT was changed after adjusting H-STAT, adjust H-STAT again. (The H-STAT can be changed by the H-CENT switch.)

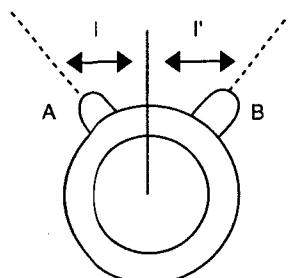
3. Align the top and bottom of R, G, B at the center of the screen using the V-STAT (vertical static convergence) magnets.

Note: After the V-STAT adjustment, always paint the magnets to lock.



While maintaining the V-STAT magnet knobs A and B at the same angle ($I = I'$), adjust the top and bottom convergences. If A and B are asymmetrical ($I \neq I'$), it will have a negative effect; the focus may not be accurate, or the beam striking may occur.

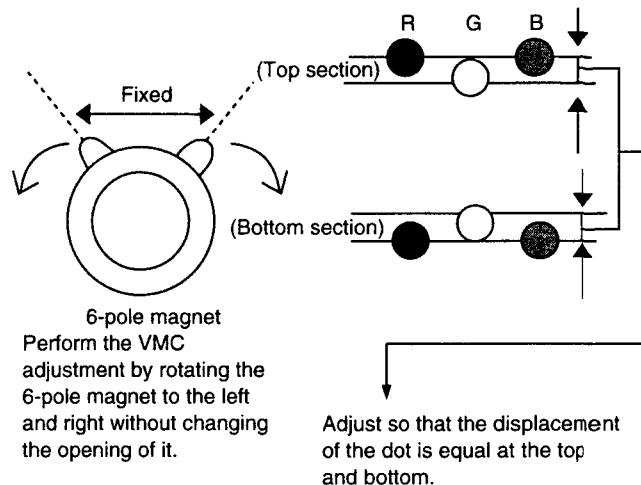
4. For HMC, use a 6-pole magnet and adjust so that the R and B dots are symmetrical at the left and right sides in respect to the G dot.



6-pole magnet
Perform the HMC adjustment by changing the opening of the 6-pole magnet.

Adjust the 6-pole magnet so that $A = A'$. While maintaining the I and I' angles equal, adjust the 6-pole magnet.

5. For VMC, use a 6-pole magnet to adjust so that the R and B dots are symmetrical above and below the G dot.

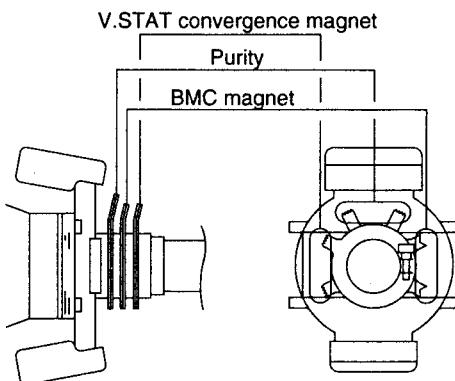


6. Repeat steps 2 to 5 until the convergence becomes correct.

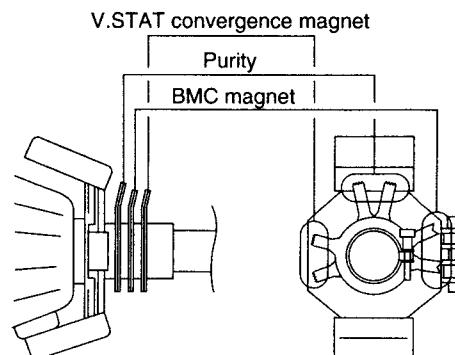
Note: Adjusting the convergence may affect the landing. Therefore be sure to check the landing again after completing this adjustment.

7. After adjusting, paint each magnet to lock them.

14-inch



20-inch



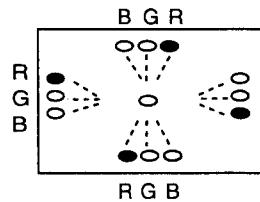
3-7. INCLINATION OF DEFLECTION YOKE ADJUSTMENT

If there is misconvergence at both sides of the X or Y axis of the CRT screen, incline the deflection yoke in the arrow direction to reduce the misconvergence for the entire CRT screen to satisfy the tolerance specified.

1. Adjustment

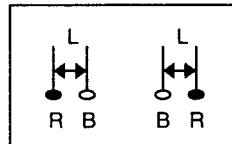
- If misconverged in the opposite direction

Move the deflection yoke downward.



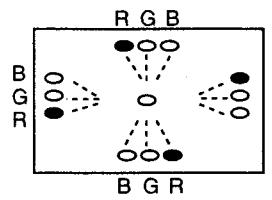
- If inclined to the left

Move the deflection yoke to the right as → viewed from the CRT screen.



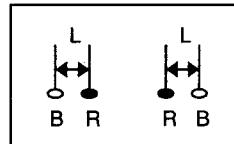
- If misconverged in the normal direction

Move the deflection yoke downward.

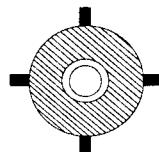


- If inclined to the right

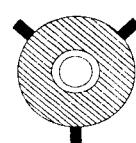
Move the deflection yoke to the left as ← viewed from the CRT screen.



2. Insert the wedges into the DY and CRT funnel face to fix the deflection yoke. The number and position of the wedges are shown in the figure below.

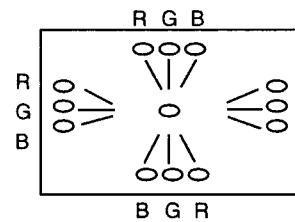


Position of the 14-inch wedge

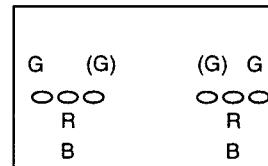


Position of the 20-inch wedge

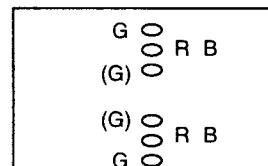
3. The pattern below cannot be corrected by adjusting the inclination of the deflection yoke.



R **Gun rotation**
G Beam is twisted at both
B sides of the X and Y
axes respectively.



HCR large (small)
The G raster vertical
component is wider (or
narrower) at both sides of
the screen than those of
the R and B rasters.



VCR large (small)
The G raster vertical
component is wider (or
narrower) at both sides of
the screen than those of
the R and B rasters.

3-8. G2 ADJUSTMENT

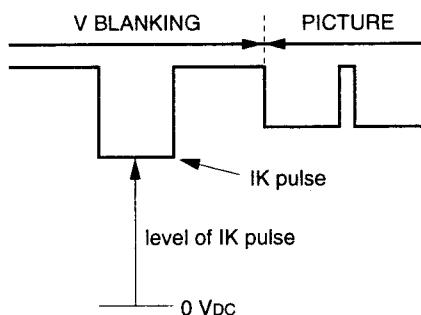
1. Receive the 525 or 625 monoscope signal.
2. Set as follows in the service mode.

No.	Item	Data	
	PVM-14N5U/14N6U	PVM-20N5U/20N6U	
	14N5E/14N6E	20N5E/20N6E	
	14N5A/14N6A	20N5A/20N6A	
	14N5MDE	SSM-20N5U	
	SSM-14N5U	20N5E	
	14N5A	20N5A	
	14N5E		
33	SUB BRT CVBS	31	
40	C/O G ROUGH	3	7
42	C/O OFFSET CVBS	31	
44	C/O G FINE CVBS	31	

Data Setting by Service Mode

3. Connect the probe of the oscilloscope to the Q714 collector.
4. Adjust the Q714 collector IK pulse level to the following voltage using RV701 (G2).

20-inch (RV701/CB board): G cathode = 149 ± 1 V
 14-inch (RV701/CA board): G cathode = 136 ± 1 V



3-9. WHITE BALANCE ADJUSTMENTS

3-9-1. VIDEO (Except SECAM) Adjustment

1. Select the LINE A input.

Set the monitor to the levels in the following table in the service mode.

No.	Item	Data	
	PVM-14N5U/14N6U	PVM-20N5U/20N6U	
	14N5E/14N6E	20N5E/20N6E	
	14N5A/14N6A	20N5A/20N6A	
	14N5MDE	SSM-20N5U	
	SSM-14N5U	20N5E	
	14N5A	20N5A	
	14N5E		
33	SUB BRT CVBS	31	
34	SUB BRT RGB	31	
39	C/O R ROUGH	3	7
40	C/O G ROUGH	3	7
41	C/O B ROUGH	3	7
45	C/O B FINE CVBS	31	
52	C/O G FINE RGB	31	

Data Setting by Service Mode

2. Input the all gray signal (Fig. 1) into LINE A.
3. Adjust the luminance to 3 ± 0.2 nit using 42 [C/O OFFSET CVBS].
4. Adjust the white balance to the color temperature shown in Table 1 using 43 [C/O R FINE CVBS] and 45 [C/O B FINE CVBS].
5. Repeat steps 3 and 4 so that the luminance and white balance become the specifications shown in Table 1.
6. Input the window signal (Fig. 2) into LINE A.
7. Adjust the luminance to 150 ± 1 nit using 46 [DRV ALL CVBS].
8. Adjust the white balance to the color temperature shown in Table 1 using 47 [DRV R CVBS] and 49 [DRV B CVBS].
9. Repeat steps 7 and 8 so that the luminance and white balance become the specifications shown in Table 1.
10. The cutoff varies by changing the drives. Therefore, repeat steps 3 to 9 until the luminance and color temperature of the arive and cutoff meet the specification.
11. Repeat steps 2 and 10 so that the luminance and white balance of the cutoff side (Fig. 1) and drive side (Fig. 2) become the specifications shown in Table 1.
12. Save the data.

11. Copy the data of the items adjusted in steps 1 to 10 to the service items for adjusting the SECAM white balance.

42 C/O OFFSET CVBS	- Copied to → 50	C/O OFFSET SECAM
43 C/O R FINE CVBS	- Copied to → 51	C/O R FINE SECAM
44 C/O G FINE CVBS	- Copied to → 52	C/O G FINE SECAM
45 C/O B FINE CVBS	- Copied to → 53	C/O B FINE SECAM
47 DRV R CVBS	- Copied to → 55	DRV R SECAM
48 DRV G CVBS	- Copied to → 56	DRV G SECAM
49 DRV B CVBS	- Copied to → 57	DRV B SECAM

12. Save the adjustment data.



Fig. 1. NTSC All Gray Signal (With Burst)

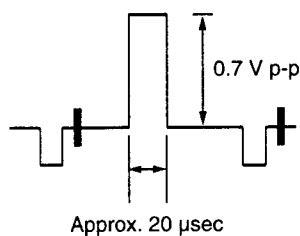


Fig. 2. NTSC Window Signal (With Burst)

Color Temperature	Adjustment Error
D65 (x = 0.313, y = 0.329)	±1 JND

Table 1. Color Temperature

Note: If there is no NTSC Window signal (with burst), use Step signal.

3-9-2. Analog RGB Adjustment (PVM-14N6A, PVM-14N6E, PVM-14N6U, PVM-20N6E, PVM-20N6U)

1. Select RGB signal.
2. Input the all gray signal (Fig. 3) into the RGB input.
3. Adjust the luminance to 3 ± 0.2 nit using 58 C/O OFFSET RGB.
4. Adjust the white balance to the color temperature shown in Table 1 using 59 C/O R FINE RGB and 61 C/O B FINE RGB.
5. Repeat steps 3 and 4 so that the luminance and white balance become the specifications shown in Table 1.
6. Input the window signal (Fig. 4) into the RGB input.
7. Adjust the luminance to 150 ± 1 nit using 62 DRV ALL RGB.
8. Adjust the white balance to the color temperature shown in Table 1 using 63 DRV R RGB and 65 DRV B RGB.
9. Repeat steps 7 and 8 so that the luminance and white balance become the specifications shown in Table 1.
10. The cutoff varies by changing the drives. Therefore, repeat steps 3 to 9 until the luminance and color temperature of the arive and cutoff meet the specification.
11. Repeat steps 2 to 10 so that the luminance and white balance of the cut-off side (Fig. 3) and drive side (Fig. 4) become the specifications shown in Table 1.
12. Save the adjustment data.

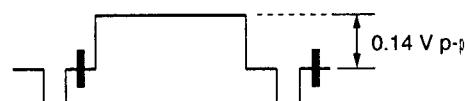


Fig. 3. 525/60 All Gray Signal

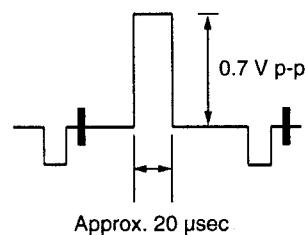


Fig. 4. 525/60 Window Signal

3-9-3. SECAM Cut-off Adjustment

1. Select LINE-A input.
2. Input the SECAM all gray signal (Fig. 5) into the LINE-A.
3. Adjust the luminance to 3 ± 0.2 nit using 50 [C/O OFFSET SECAM].
4. Adjust the white balance to the color temperature shown in Table 1 using 51 [C/O R FINE SECAM] and 53 [C/O B FINE SECAM].
5. Repeat steps 3 and 4 so that the luminance and white balance become the specifications shown in Table 1.
6. Save the adjustment data.

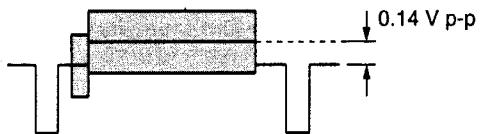


Fig.5. SECAM all gray signal

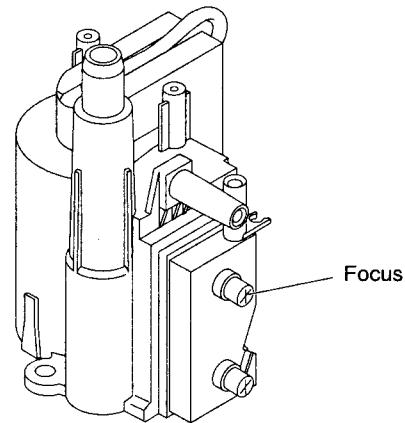
3-9-4. Sub-Brightness Adjustment

After completing the adjustments in 3-9-1, 3-9-2, and 3-9-3, set the sub-brightness data as follows.

No.	Item	Data
33	SUB BRT CVBS	33
34	SUB BRT RGB	33

3-10. FOCUS ADJUSTMENT

Adjust RV702 of the CA board for the 14-inch model.
Adjust RV at the top of the FBT for the 20-inch model.



1. Input the 525 monoscope signal.
2. Adjust the focus so that the focus of the "30" at the center of the screen becomes optimum.
3. Switch the signal to all white, and check the uniformity.

SECTION 4

SAFETY RELATED ADJUSTMENTS

Note: The “4-1. B+ Voltage Check” and “4-2. Protection Circuit (Hold-down circuit) Check” should always be performed when replacing the following components marked on the schematic diagram.

A board

Marked products (☒) C102, C331, C332, C333,
C334, C335, C341, C390,
C507, D102, D103, C1454,
IC001, IC301, IC552, L505,
Q102, R107, R108, R110,
R324, R325, R326, R327,
R328, R329, R330, T501

4-1. B+ VOLTAGE CHECK

Note: Be sure to use the NF power supply. If not, use an ordinary power supply of its distortion factor is 3 % or less.

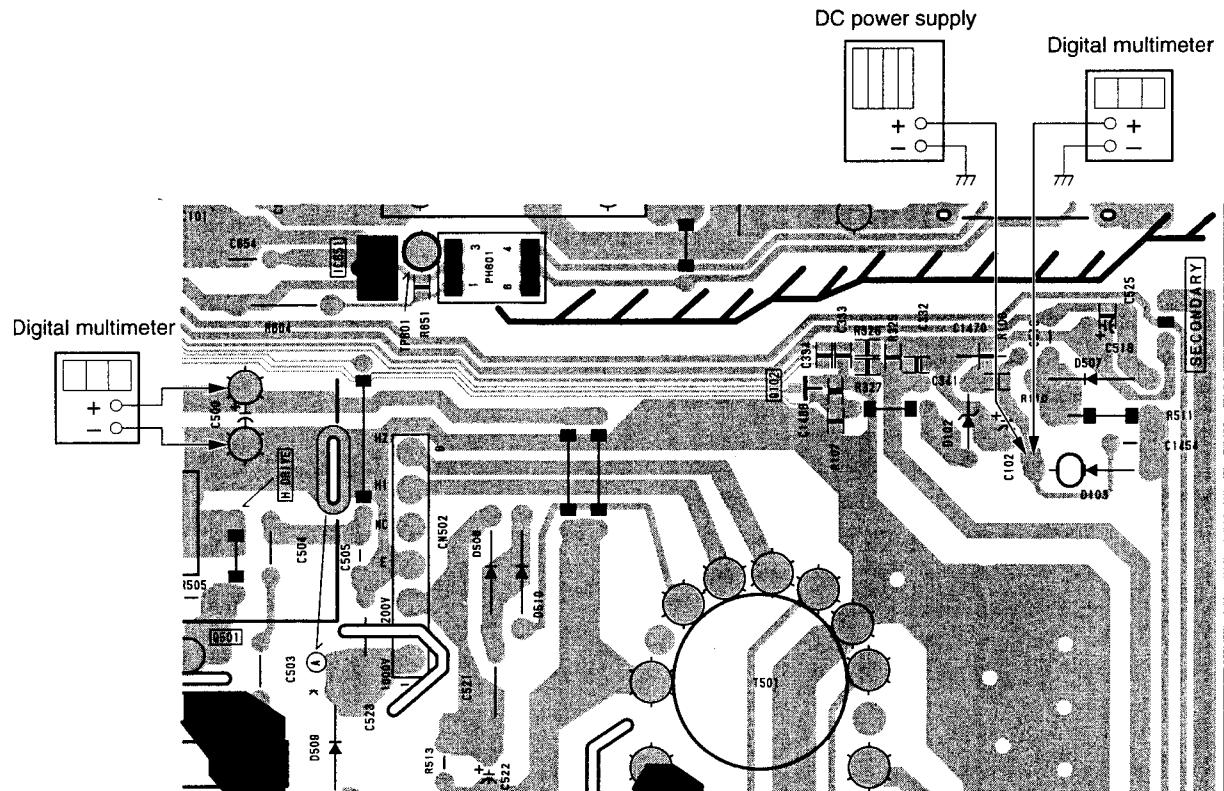
Input voltage: 130 ± 3 Vac

Input signal: Black

Controls: **BRIGHTNESS** \Rightarrow Minimum
 CONTRAST \Rightarrow Minimum

Specification: Confirm that the voltage at C500 on the A board is 116.0 Vdc or less.

A BOARD (B SIDE)



4-2. PROTECTION CIRCUIT (HOLD-DOWN CIRCUIT) CHECK

Note: Be sure to use the NF power supply. If not, use an ordinary power supply of its distortion factor is 3% or less.

1. Protection Circuit Normal Operation Check

Input voltage: 120 ± 3 Vac

Input signal: Black

Controls: BRIGHTNESS \Rightarrow Minimum
CONTRAST \Rightarrow Minimum

Specification: Confirm that the voltage at Cathode of D103 on the A board and ground is greater than 99.0 Vdc.

2. Protection Circuit Operation Check (1)

Input voltage: 130 Vac

Input signal: Black

Controls: 14-inch: IABL = 40 ± 20 μ A
20-inch: IABL = 120 ± 20 μ A

Specification: Apply following voltage to Cathode of D103 on the A board from the external DC power supply and make sure that the hold-down circuit doesn't work.

14-inch: 119.6 ± 0.4 Vac

20-inch: 145.2 ± 0.4 Vac

3. Protection Circuit Operation Check (2)

Input voltage: 130 Vac

Input signal: Black

Controls: 14-inch: IABL = 40 ± 20 μ A
20-inch: IABL = 120 ± 20 μ A

Specification: Apply following voltage to Cathode of D103 on the A board from the external DC power supply and make sure that the hold-down circuit works.

14-inch: 128.4 ± 0.4 Vac

20-inch: 156.6 ± 0.4 Vac

SECTION 5

CIRCUIT ADJUSTMENTS

5-1. PREPARATIONS

Input signals within $\pm 2\%$ of the following specifications.

Signal	Signal Contents	Standard Level P-W
NTSC	100 % WHITE	0.714 V
3.58	75 % WHITE	0.536 V
NTSC	BURST (GREEN)	286 mV p-p (632 mV p-p)
COMPOSITE VIDEO (75 % COLOR BAR)	100 % WHITE	0.7 V
PAL SECAM	75 % WHITE	0.525 V
	PAL BURST (GREEN)	300 mV p-p (664 mV p-p)

5-2. DEFLECTION SYSTEM ADJUSTMENT

5-2-1. Vertical Deflection Section Adjustment

Note: The 16 : 9 mode is available only for the PVM-14N6U and PVM-20N6U.

		525 Monoscope	625 Special CB
4 : 3		11.75 ± 0.2 frames	12.8 ± 0.3 frames
16 : 9	14-inch	157 mm	157 mm
	20-inch	221 mm	221 mm
Vertical Size Specifications			

1. Input the 525 Monoscope signal.
2. Set CONTRAST to 80 %.
Set BRIGHTNESS to standard (STD).
3. Set the service mode.
4. Adjust the vertical size to the specified value using 89 **V SIZE**.
Optimize the vertical linearity using 92 **V LINEARITY** and 91 **VS-CORRECTION**.
Adjust the vertical centering using 88 **V CENTER**.
(Refer to Note 1.)
5. Check that the vertical size is within the specification.
6. Set the 16 : 9 mode.
7. Check that the vertical size is within the 16 : 9 mode specification. (Refer to Note 2.)
8. Return to the 4 : 3 mode.
9. Input the 625 special color bar signal.
10. Check that the vertical size is within the specification.
11. Set the 16 : 9 mode.
12. Check that the vertical size is within the 16 : 9 mode specification.

Note 1: Set 89 **V SIZE** within the "10 to 63" range.
Always set 93 **V LIN UPPER** and 94 **V LIN LOWER** to "0".

Note 2: Measure the vertical size of the 16 : 9 mode with no flag signal in the vicinity of the image.

5-2-2. Horizontal Deflection Section Adjustment

Note 1: Make sure that the "3-4. Raster Centering Adjustment" has been completed before performing this adjustment.

Note 2: The 16 : 9 mode is available only for the PVM-14N6U and PVM-20N6U.

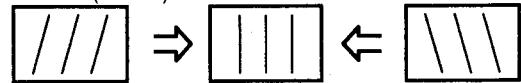
1. Input the 525 Monoscope signal.
2. Set CONTRAST to 80 %.
Set BRIGHTNESS to standard (STD).
3. Set the service mode.
4. Adjust roughly the horizontal size to 16 frames using 95 **H SIZE**.
5. Adjust the horizontal deflection section using 97 **H PIN AMP**, 96 **H PIN PHASE**, 98 **H CORNER PIN**, 86 **BOW**, 87 **ANGLE**, and 95 **H SIZE**.
While correcting the distortion, adjust so that the horizontal and vertical of the screen become perpendicular.
6. Set the 16 : 9 mode.
7. Check that the screen distortion is normal.
8. Input the 625 special color bar signal.
9. Check that the screen distortion is normal for both 4 : 3 and 16 : 9.

525 Monoscope	625 Special CB
4 : 3	15.75 ± 0.2 frames 16.8 ± 0.3 frames
16 : 9	15.75 ± 0.2 frames 16.8 ± 0.3 frames
Horizontal Size Specification	

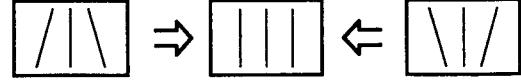
BOW (No. 86)



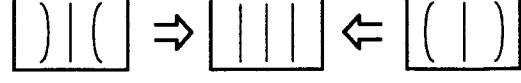
ANGLE (No. 87)



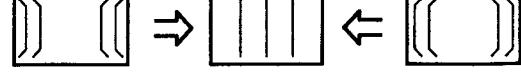
H PIN PHASE (No. 96)



H PIN AMP (No. 97)



H COR PIN (No. 98)



5-2-3. Horizontal Centering Adjustment

The register for adjusting the horizontal centering requires 5 adjustments depending on the combination of the input and signal.

No.	Item	Input	Adjustment Signal
71	H CENT 60 Hz CVBS	LINE-A	525 Monoscope
72	H CENT 60 Hz RGB	RGB	525 Monoscope
73	H CENT 50 Hz CVBS	LINE-A	625 special color bar
74	H CENT 50 Hz RGB	RGB	625 special color bar
75	H CENT NTSC COMB	LINE-A	525 Monoscope

1. Select LINE-A.
2. Input the 525 Monoscope signal into the LINE-A input.
3. Select NTSC at the COLOR SELECT menu.
4. Adjust the horizontal centering using 71
[H CENT 60HZ CVBS].
5. Select AUTO at the COLOR SELECT menu.
6. Adjust the horizontal centering using 75
[H CENT NTSC COMB].
7. Input the 625 special color bar signal into the LINE-A input.
8. Adjust the horizontal centering using 73
[H CENT 50HZ CVBS].
9. Save the data.

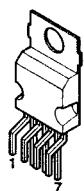
Note: The following items 10 to 16 are for PVM-14N6A, PVM-14N6E, PVM-20N6A and PVM-20N6E.

10. Select RGB.
11. Select SYNC ON G at the RGB SYNC menu.
12. Input the 525 Monoscope signal into the RGB input.
13. Adjust the horizontal centering using 72
[H CENT 60HZ RGB].
14. Input the 625 special color bar signal into the RGB input.
15. Adjust the horizontal centering using 74
[H CENT 50HZ RGB].
16. Save the data.

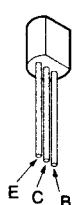
SECTION 6

SEMICONDUCTORS

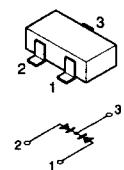
BA4558
MM1096BD
M24C01-BN6
TDA7052A
UPC4558C

**STV9379**

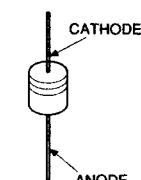
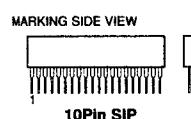
BF421
BF871
2SA1091O-TPE2
2SA1091-O
2SA933S-RT



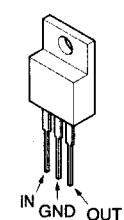
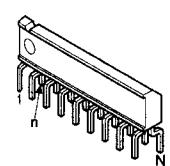
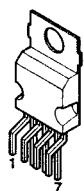
DAN202K
DAN202K-T-146



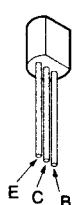
MTZJ-11A
MTZJ-5.1B
MTZJ-6.2C
MTZJ-7.5B
RD5.1ESB2

**BA7604N****CXA2060BS****CXA85116B-670S****MC14052BCP**

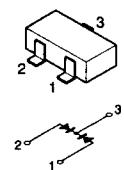
MC7805CT
MC7809CT
NJM7809FA
SE115N
TA7805S

**STR-S6708****STV9379**

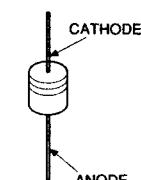
BF421
BF871
2SA1091O-TPE2
2SA1091-O
2SA933S-RT



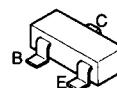
DAN202K
DAN202K-T-146



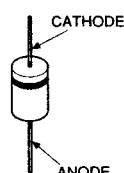
MTZJ-11A
MTZJ-5.1B
MTZJ-6.2C
MTZJ-7.5B
RD5.1ESB2



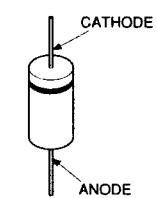
2SA1037AK-T146-Q
2SC1623-L5L6
2SA2412K-T-146-Q



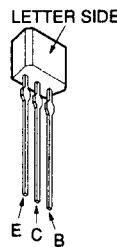
EGP20G
EL1Z
EL1Z-V1
GP08D
GP08DPKG23
RGP02-17EL-6433
RGP02-17PKG23
RGP10GPKG23



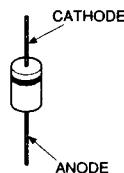
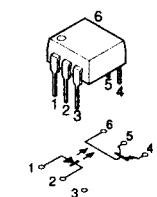
MTZJ-36B
RU4AM-T3



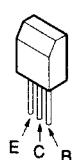
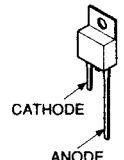
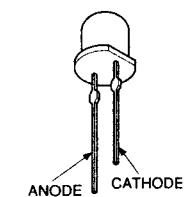
2SA1175-HFE
2SC1740S-RT
2SC2785-HFE



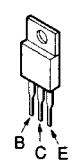
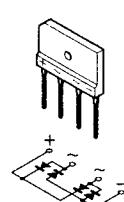
ERC06-15S
RGP15J-6040G23
ISS133T-77

**RC111YS**

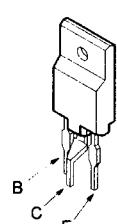
2SC3209LK
2SC3209LK-TP

**FML-G12S****SLR-56MC3F**

2SC3852A
2SD2394-EF

**GPU4JL-6088**

2SD1878-CA
2SD1877S-SONY-CA





SECTION 7

EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.

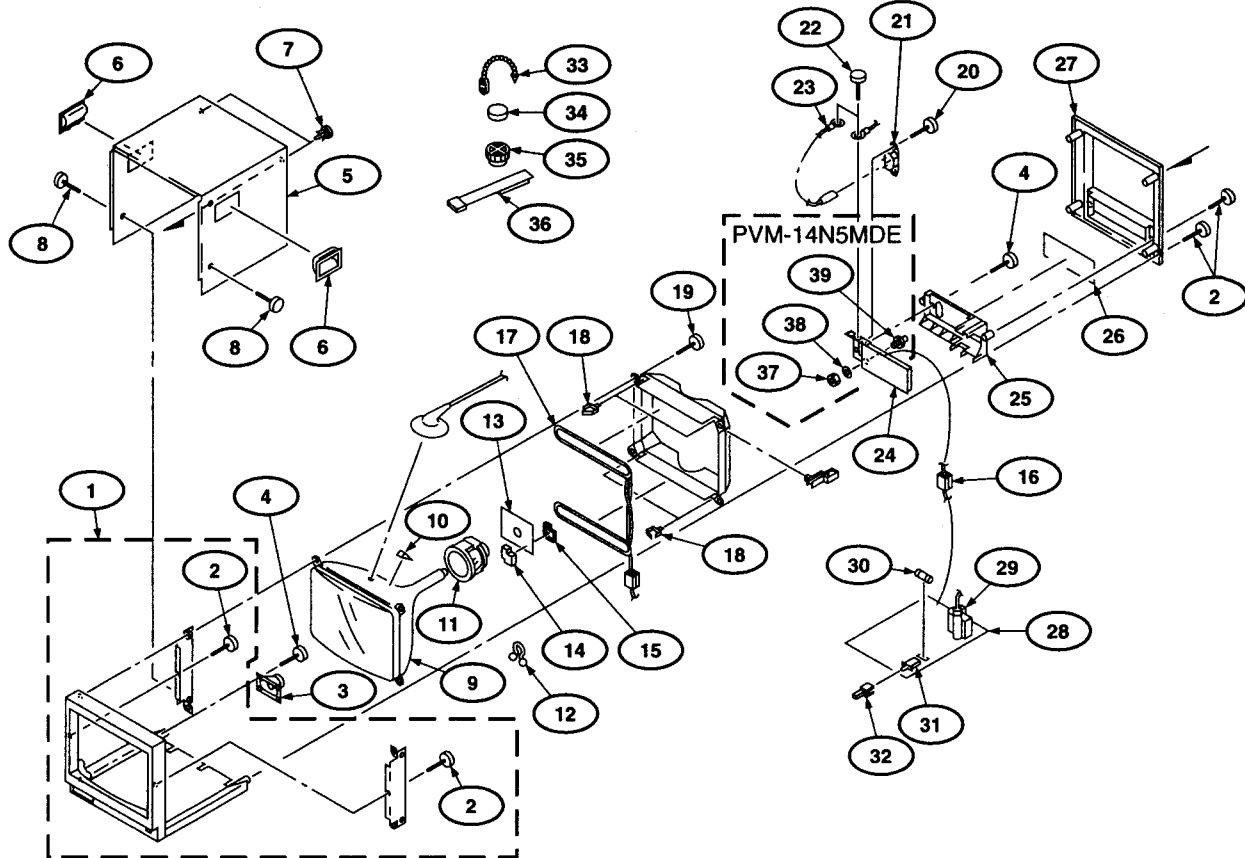
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by mark Δ are critical for safety. Replace only with part number specified.

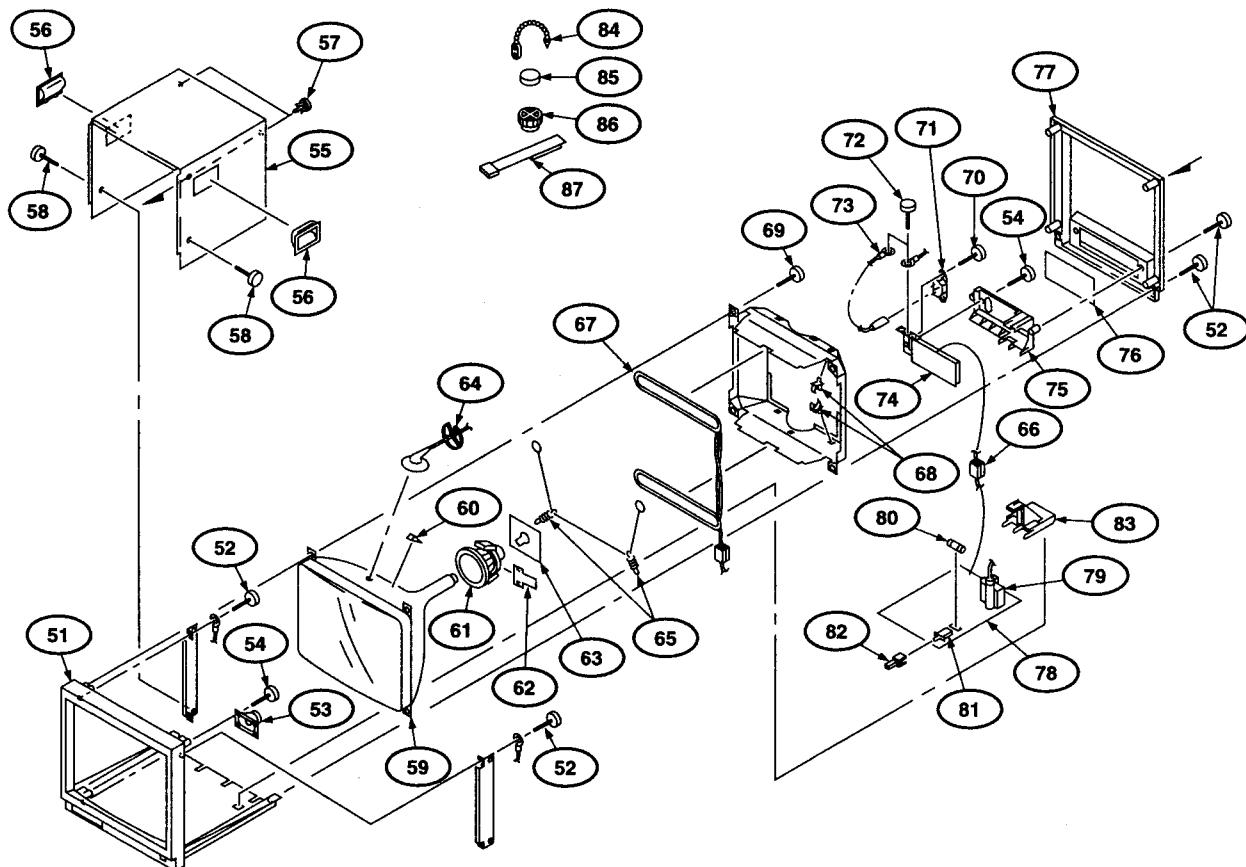
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CHASSIS (14-INCH)



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	X-4033-973-1	BEZNET ASSY (PVM-14N6A/14N6E/14N6U) 2		24	* A-1270-399-A	Q BOARD, COMPLETE (PVM-14N6A/14N6E/14N6U)	
	X-4033-974-1	BEZNET ASSY (PVM-14N5A/14N5E/14N5U) 2			* A-1270-401-A	Q BOARD, COMPLETE (SSM-14N5A/14N5E/14N5U)	
	X-4033-975-1	BEZNET ASSY (SSM-14N5A/14N5E/14N5U) 2		25	4-050-074-03	PANEL, CONNECTOR	
	X-4033-976-2	BEZNET ASSY (PVM-14N5MDE)	2	26	4-050-082-02	LABEL, CONNECTOR (PVM-14N6A/14N6E/14N6U)	
2	4-039-358-01	SCREW (4X16), (+) BV TAPPING			4-050-082-12	LABEL, CONNECTOR (PVM-14N5A/14N5E/14N5U)	
3	1-505-188-11	SPEAKER (4X7CM)			4-050-082-22	LABEL, CONNECTOR (SSM-14N5A/14N5E/14N5U)	
4	4-039-356-01	SCREW (3X12), (+) BV TAPPING			4-050-082-32	LABEL, CONNECTOR (PVM-14N5MDE)	
5	4-050-073-11	CABINET (except PVM-14N5MDE)		27	4-050-081-01	PANEL, REAR	
	A-1501-211-B	CABINET (PVM-14N5MDE)		28	* A-1298-614-A	A BOARD, COMPLETE (PVM-14N5A/14N5E/14N5U)	
6	4-389-320-21	HANDLE			* A-1298-615-A	A BOARD, COMPLETE (PVM-14N6A/14N6E/14N6U)	
7	4-391-825-01	RIVET, NYLON			* A-1298-623-A	A BOARD, COMPLETE (SSM-14N5A/14N5E/14N5U)	
8	4-847-802-11	SCREW (M4X8), CLAW			* A-1298-624-A	A BOARD, COMPLETE (PVM-14N5MDE)	
9	△8-738-342-05	PICTURE TUBE (M34KBE10X)		29	△ 8-598-830-00	TRANSFORMER ASSY, FLYBACK (NX-4301/J2A4)	
10	3-704-495-01	SPACER, DY		30	△ 1-576-231-11	FUSE (H.B.C.) (4A/250V)	
11	△8-451-472-11	DEFLECTION YOKE (Y14MGAT)		31	△ 1-571-433-31	SWITCH, PUSH (AC POWER)	
12	4-847-334-02	PURSE LOCK (DIA.15)		32	4-050-085-01	BUTTON, POWER SWITCH	
13	*A-1331-827-A	CA BOARD, COMPLETE		33	4-308-870-00	CLIP, LEAD WIRE	
14	*4-374-912-01	COVER (MAIN), CV VOL		34	1-452-032-00	MAGNET, DISK ; 10mmØ	
15	*4-374-913-01	COVER (REAR LID), CV VOL		35	1-452-094-00	MAGNET, ROTATABLE DISK ; 15mmØ	
16	1-543-653-11	CORE ASSY, BEAD(DIVISION TYPE)		36	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
17	△1-426-442-21	COIL, DEMAGNETIZATION		37	* 3-175-741-01	NUT (PVM-14N5MDE)	
18	*4-316-015-00	HOLDER, WIRE		38	* 3-175-742-01	WASHER (PVM-14N5MDE)	
19	4-203-648-01	SCREW (5), SELF TAPPING		39	* 3-175-740-01	TERMINAL (PVM-14N5MDE)	
20	4-050-078-01	SCREW, +B M3X10					SIIA;P-chassis
21	△1-251-263-11	INLET, AC					
22	4-050-077-01	SCREW +PSW M4X8					
23	*1-900-214-07	WIRE ASSY, SAFETY EARTH					
24	*A-1270-398-A	Q BOARD, COMPLETE (PVM-14N5A/14N5E/14N5MDE/14N5U)					

7-2. CHASSIS (20-INCH)



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
51	X-4033-977-1	BEZNET ASSY (PVM-20N6A/20N6E/20N6U)		74	* A-1270-398-A	Q BOARD, COMPLETE (PVM-20N5A/20N5E/20N5U)	
	X-4033-978-1	BEZNET ASSY (PVM-20N5A/20N5E/20N5U)			* A-1270-399-A	Q BOARD, COMPLETE (PVM-20N6A/20N6E/20N6U)	
	X-4033-979-1	BEZNET ASSY (SSM-20N5A/20N5E/20N5U)			* A-1270-401-A	Q BOARD, COMPLETE (SSM-20N5A/20N5E/20N5U)	
52	4-039-358-01	SCREW (4X16), (+) BV TAPPING		75	4-050-074-03	PANEL, CONNECTOR	
53	1-505-188-11	SPEAKER (4X7CM)		76	4-050-082-02	LABEL, CONNECTOR (PVM-20N6A/20N6E/20N6U)	
54	4-039-356-01	SCREW (3X12), (+) BV TAPPING		76	4-050-082-12	LABEL, CONNECTOR (PVM-20N5A/20N5E/20N5U)	
55	4-050-060-33	CABINET		76	4-050-082-22	LABEL, CONNECTOR (SSM-20N5A/20N5E/20N5U)	
56	4-389-320-21	HANDLE		77	4-050-063-01	PANEL, REAR	
57	4-391-825-01	RIVET, NYLON		78	* A-1298-619-A	A BOARD, COMPLETE (PVM-20N5A/20N5E/20N5U)	
58	4-847-802-11	SCREW (M4X8), CLAW			* A-1298-621-A	A BOARD, COMPLETE (PVM-20N6A/20N6E/20N6U)	
59	△ 8-736-135-05	PICTURE TUBE (M49KGH10X)		78	* A-1298-622-A	A BOARD, COMPLETE (SSM-20N5A/20N5E/20N5U)	
60	3-704-495-01	SPACER, DY		79	△ 1-453-277-11	TRANSFORMER ASSY, FLYBACK (NX-4008//U2A4)	
61	△ 1-451-349-11	DEFLECTION YOKE (Y20FZA)		80	△ 1-576-231-11	FUSE (H.B.C.) (4A/250V)	
62	4-030-120-01	PLATE, CORRECTION, TLV		81	△ 1-571-433-31	SWITCH, PUSH (AC POWER)	
63	* A-1331-828-A	CB BOARD, COMPLETE		82	4-050-085-01	BUTTON, POWER SWITCH	
64	3-704-372-01	HOLDER, HV CABLE		83	4-050-066-01	HOLDER, PWB	
65	4-369-318-31	SPRING, TENSION		84	4-308-870-00	CLIP, LEAD WIRE	
66	1-543-653-11	CORE ASSY, BEAD (DIVISION TYPE)		85	1-452-032-00	MAGNET,DISK ; 10mmø	
67	△ 1-411-750-11	COIL, DEMAGNETIC		86	1-452-094-00	MAGNET, ROTATABLE DISK ; 15mmø	
68	4-041-021-02	HOLDER, DEGAUSE COIL		87	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
69	4-203-648-01	SCREW (5), SELF TAPPING					
70	4-050-078-01	SCREW, +B M3X10					
71	△ 1-251-263-11	INLET, AC					
72	4-050-077-01	SCREW +PSW M4X8					
73	* 1-900-214-07	WIRE ASSY, SAFETY EARTH					

SECTION 8

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F: nonflammable

When indicating parts by reference number, please include the board name.

• CAPACITORS

PF: $\mu\mu$ F

- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark	
	* A-1270-398-A	Q BOARD, COMPLETE ***** (PVM-14N5A/E/U, 14N5MDE, 20N5A/E/U)		C1350	1-163-235-11 CERAMIC CHIP 22PF	5% 50V (except SSM-14N5A/E/U, 20N5A/E/U)		
	* A-1270-399-A	Q BOARD, COMPLETE ***** (PVM-14N6A/E/U, 20N6A/E/U)		C1350	1-216-295-91 SHORT	0 (SSM-14N5A/E/U, 20N5A/E/U)		
	* A-1270-401-A	Q BOARD, COMPLETE ***** (SSM-14N5A/E/U, 20N5A/E/U)		C1351	1-163-235-11 CERAMIC CHIP 22PF	5% 50V (except SSM-14N5A/E/U, 20N5A/E/U)		
	1-694-045-11	TERMINAL BOARD ASSY, I/O (J1301, 1302, 1305, 1306, 1311-1317, 1320, 1321) (PVM-14N6A/E/U, 20N6A/E/U)		C1351	1-216-295-91 SHORT	0 (SSM-14N5A/E/U, 20N5A/E/U)		
	1-694-046-11	TERMINAL BOARD ASSY, I/O (J1301, 1302, 1305, 1306, 1317, 1320) (PVM-14N5A/E/U, 14N5MDE, 20N5A/E/U)		C1352	1-163-235-11 CERAMIC CHIP 22PF	5% 50V (except SSM-14N5A/E/U, 20N5A/E/U)		
	1-694-047-11	TERMINAL BOARD ASSY, I/O (J1301, 1302, 1305, 1306) (SSM-14N5A/E/U, 20N5A/E/U)		C1352	1-216-295-91 SHORT	0 (SSM-14N5A/E/U, 20N5A/E/U)		
	7-627-557-48	SCREW (2.6X10), +P TAPPING		C1353	1-163-235-11 CERAMIC CHIP 22PF	5% 50V (except SSM-14N5A/E/U, 20N5A/E/U)		
	<CAPACITOR>				C1353	1-216-295-91 SHORT	0 (SSM-14N5A/E/U, 20N5A/E/U)	
C1303	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V	C1354	1-163-021-91 CERAMIC CHIP 0.01μF	10% 50V		
C1304	1-113-340-11	ELECT	47μF 20% 25V	C1355	1-163-235-11 CERAMIC CHIP 22PF	5% 50V		
C1305	1-164-005-11	CERAMIC CHIP 0.47μF	25V	C1356	1-163-235-11 CERAMIC CHIP 22PF	5% 50V		
C1308	1-126-795-11	ELECT	10μF 20% 25V	C1357	1-163-021-91 CERAMIC CHIP 0.01μF	10% 50V		
C1317	1-126-795-11	ELECT	10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U)		C1358	1-163-235-11 CERAMIC CHIP 22PF	5% 50V	
C1319	1-126-795-11	ELECT	10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U)		C1359	1-113-340-11 ELECT	47μF 20% 25V	
C1320	1-126-795-11	ELECT	10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U)		C1360	1-113-340-11 ELECT	47μF 20% 25V	
C1322	1-126-795-11	ELECT	10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U)		C1361	1-113-340-11 ELECT	47μF 20% 25V	
C1325	1-126-795-11	ELECT	10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U)		C1362	1-113-340-11 ELECT	47μF 20% 25V	
C1326	1-126-795-11	ELECT	10μF 20% 25V		<CONNECTOR>			
C1327	1-126-795-11	ELECT	10μF 20% 25V		CN1301	* 1-564-521-11 PLUG, CONNECTOR 6P		
C1328	1-126-795-11	ELECT	10μF 20% 25V (except SSM-14N5A/E/U, 20N5A/E/U)		CN1302	* 1-564-522-11 PLUG, CONNECTOR 7P (except SSM-14N5A/E/U, 20N5A/E/U)		
C1329	1-126-795-11	ELECT	10μF 20% 25V (except SSM-14N5A/E/U, 20N5A/E/U)		CN1303	* 1-564-522-11 PLUG, CONNECTOR 7P (except PVM-14N5A/E/U, 14N5MDE, 20N5A/E/U)		
C1330	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V (except SSM-14N5A/E/U, 20N5A/E/U)		<DIODE>			
C1331	1-126-795-11	ELECT	10μF 20% 25V (except SSM-14N5A/E/U, 20N5A/E/U)		D1300	8-719-991-33 DIODE 1SS133T-77		
C1332	1-163-121-00	CERAMIC CHIP 150PF	5% 50V		D1301	8-719-991-33 DIODE 1SS133T-77		
C1333	1-163-121-00	CERAMIC CHIP 150PF	5% 50V (except SSM-14N5A/E/U, 20N5A/E/U)		D1302	8-719-991-33 DIODE 1SS133T-77		
C1334	1-163-121-00	CERAMIC CHIP 150PF	5% 50V (PVM-14N6A/E/U, 20N6A/E/U)		D1303	8-719-991-33 DIODE 1SS133T-77		
C1335	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V		D1304	8-719-991-33 DIODE 1SS133T-77		
C1341	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V		D1305	8-719-991-33 DIODE 1SS133T-77		
C1342	1-163-235-11	CERAMIC CHIP 22PF	5% 50V		D1308	8-719-991-33 DIODE 1SS133T-77		
C1343	1-163-235-11	CERAMIC CHIP 22PF	5% 50V		D1309	8-719-991-33 DIODE 1SS133T-77		
C1344	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V		D1314	8-719-991-33 DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)		
C1345	1-163-235-11	CERAMIC CHIP 22PF	5% 50V		D1315	8-719-991-33 DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)		
C1346	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V		D1316	8-719-991-33 DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)		
C1347	1-164-005-11	CERAMIC CHIP 0.47μF	25V		D1317	8-719-991-33 DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)		
C1348	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V		D1318	8-719-991-33 DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)		
C1349	1-163-235-11	CERAMIC CHIP 22PF	5% 50V		D1319	8-719-991-33 DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)		
					D1320	8-719-991-33 DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)		
					D1321	8-719-991-33 DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)		
					D1322	8-719-923-74 DIODE MTZJ-T-77-11A (PVM-14N6A/E/U, 20N6A/E/U)		

Ref.No.	Part No.	Description		Remark	Ref.No.	Part No.	Description		Remark
D1324	8-719-991-33	DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U)			R1317	1-216-065-00	RES,CHIP	4.7K	5% 1/10W
D1325	8-719-991-33	DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U)			R1318	1-216-119-00	RES,CHIP	820K	5% 1/10W
D1326	8-719-991-33	DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U)			R1319	1-216-107-00	RES,CHIP	270K	5% 1/10W
D1327	8-719-991-33	DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U)			R1320	1-216-097-00	RES,CHIP	100K	5% 1/10W
D1328	8-719-991-33	DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U)			R1321	1-216-095-00	RES,CHIP	82K	5% 1/10W
D1329	8-719-991-33	DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U)			R1331	1-216-049-91	RES,CHIP	1K	5% 1/10W
D1330	8-719-991-33	DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U)							(PVM-14N6A/E/U, 20N6A/E/U)
D1331	8-719-991-33	DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U)			R1332	1-216-073-00	RES,CHIP	10K	5% 1/10W
D1332	8-719-991-33	DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)			R1333	1-216-073-00	RES,CHIP	10K	5% 1/10W
D1333	8-719-991-33	DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U)			R1335	1-216-049-91	RES,CHIP	1K	5% 1/10W
					R1336	1-216-073-00	RES,CHIP	10K	5% 1/10W
					R1337	1-216-073-00	RES,CHIP	10K	5% 1/10W
					R1338	1-216-009-00	RES,CHIP	22	5% 1/10W
					R1339	1-214-702-00	METAL	75	1% 1/4W
					R1340	1-216-049-91	RES,CHIP	1K	5% 1/10W
IC1301	8-759-984-96	IC BA7604N			R1341	1-216-073-00	RES,CHIP	10K	5% 1/10W
					R1342	1-216-073-00	RES,CHIP	10K	5% 1/10W
					R1343	1-216-009-00	RES,CHIP	22	5% 1/10W
J1303	1-565-167-12	TERMINAL, (S) (WITH SW) 4P			R1344	1-214-702-00	METAL	75	1% 1/4W
J1304	1-569-578-11	TERMINAL, S (WITH SW)			R1345	1-216-009-00	RES,CHIP	22	5% 1/10W
J1319	1-565-167-12	TERMINAL, (S) (WITH SW) 4P (except SSM-14N5A/E/U, 20N5A/E/U)			R1346	1-214-702-00	METAL	75	1% 1/4W
					R1347	1-216-065-00	RES,CHIP	4.7K	5% 1/10W
					R1348	1-216-119-00	RES,CHIP	820K	5% 1/10W
Q1302	8-729-119-78	TRANSISTOR 2SC2785-HFE			R1349	1-216-107-00	RES,CHIP	270K	5% 1/10W
Q1305	8-729-119-76	TRANSISTOR 2SA1175-HFE			R1350	1-216-097-00	RES,CHIP	100K	5% 1/10W
Q1308	8-729-119-78	TRANSISTOR 2SC2785-HFE (PVM-14N6A/E/U, 20N6A/E/U)			R1351	1-216-095-00	RES,CHIP	82K	5% 1/10W
Q1309	8-729-119-78	TRANSISTOR 2SC2785-HFE (PVM-14N6A/E/U, 20N6A/E/U)			R1352	1-216-059-00	RES,CHIP	2.7K	5% 1/10W
Q1310	8-729-119-78	TRANSISTOR 2SC2785-HFE (PVM-14N6A/E/U, 20N6A/E/U)			R1355	1-216-049-91	RES,CHIP	1K	5% 1/10W
Q1311	8-729-119-76	TRANSISTOR 2SA1175-HFE (PVM-14N6A/E/U, 20N6A/E/U)			R1356	1-214-702-00	METAL	75	1% 1/4W
Q1312	8-729-119-78	TRANSISTOR 2SC2785-HFE (PVM-14N6A/E/U, 20N6A/E/U)			R1358	1-247-791-91	CARBON	22	5% 1/4W
Q1313	8-729-119-78	TRANSISTOR 2SC2785-HFE (except SSM-14N5A/E/U, 20N5A/E/U)			R1360	1-214-702-00	METAL	75	1% 1/4W
Q1314	8-729-119-76	TRANSISTOR 2SA1175-HFE (except SSM-14N5A/E/U, 20N5A/E/U)							(except SSM-14N5A/E/U, 20N5A/E/U)
					R1361	1-247-791-91	CARBON	22	5% 1/4W
									(except SSM-14N5A/E/U, 20N5A/E/U)
R1303	1-216-009-00	RES,CHIP	22	5% 1/10W	R1362	1-216-009-00	RES,CHIP	22	5% 1/10W
R1304	1-214-702-00	METAL	75	1% 1/4W					(except SSM-14N5A/E/U, 20N5A/E/U)
R1305	1-216-065-00	RES,CHIP	4.7K	5% 1/10W	R1363	1-214-702-00	METAL	75	1% 1/4W
R1307	1-214-702-00	METAL	75	1% 1/4W					(except SSM-14N5A/E/U, 20N5A/E/U)
R1308	1-216-059-00	RES,CHIP	2.7K	5% 1/10W	R1364	1-216-065-00	RES,CHIP	4.7K	5% 1/10W
R1309	1-216-073-00	RES,CHIP	10K	5% 1/10W					(except SSM-14N5A/E/U, 20N5A/E/U)
R1310	1-216-073-00	RES,CHIP	10K	5% 1/10W					
R1311	1-214-702-00	METAL	75	1% 1/4W					
R1312	1-216-065-00	RES,CHIP	4.7K	5% 1/10W					



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R1365	1-214-702-00	METAL	75 1% 1/4W (except SSM-14N5A/E/U, 20N5A/E/U)		4-382-854-11	SCREW (M3X10), P, SW (+)	
R1366	1-216-065-00	RES,CHIP	4.7K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)			<CAPACITOR>	
R1367	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V (except SSM-14N5A/E/U, 20N5A/E/U)	C001	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
R1368	1-216-073-00	RES,CHIP	10K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)	C002	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
R1369	1-216-073-00	RES,CHIP	10K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)	C003	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
R1370	1-216-059-00	RES,CHIP	2.7K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)	C004	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
				C006	1-163-021-91	CERAMIC CHIP 0.01μF (PVM-14N6A/E/U, 20N6A/E/U)	
R1371	1-216-095-00	RES,CHIP	82K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)	C007	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
R1372	1-216-097-00	RES,CHIP	100K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)	C008	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
R1373	1-216-119-00	RES,CHIP	820K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)	C010	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
R1374	1-216-107-00	RES,CHIP	270K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)	C011	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
R1375	1-216-065-00	RES,CHIP	4.7K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U)	C012	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
R1376	1-216-073-00	RES,CHIP	10K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U)	C013	1-126-964-11	ELECT	10μF 20% 50V
R1378	1-216-009-00	RES,CHIP	22 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U)	C014	1-163-253-11	CERAMIC CHIP 120PF	5% 50V
R1380	1-216-047-91	RES, CHIP	820 5% 1/10W	C015	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
R1381	1-216-047-91	RES, CHIP	820 5% 1/10W	C016	1-126-933-11	ELECT	100μF 20% 16V
				C017	1-126-964-11	ELECT	10μF 20% 50V
				C018	1-126-964-11	ELECT	10μF 20% 50V
				C019	1-126-964-11	ELECT	10μF 20% 50V
				C020	1-126-964-11	ELECT	10μF 20% 50V
				C021	1-126-964-11	ELECT	10μF 20% 50V
				C022	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V

* A-1298-614-A		A BOARD, COMPLETE	***** (PVM-14N5A/E/U)	C028	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
				C030	1-104-664-11	ELECT	47μF 20% 16V
* A-1298-615-A		A BOARD, COMPLETE	***** (PVM-14N6A/E/U)	C031	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
				C032	1-104-664-11	ELECT	47μF 20% 16V
* A-1298-619-A		A BOARD, COMPLETE	***** (PVM-20N5A/E/U)	C101	1-107-907-11	ELECT	22μF 20% 50V
* A-1298-621-A		A BOARD, COMPLETE	***** (PVM-20N6A/E/U)	C102	1-107-635-11	ELECT	4.7μF 20% 160V
* A-1298-622-A		A BOARD, COMPLETE	***** (SSM-20N5A/E/U)	C103	1-102-050-00	CERAMIC	0.01μF 500V
* A-1298-623-A		A BOARD, COMPLETE	***** (SSM-14N5A/E/U)	C201	1-126-964-11	ELECT	10μF 20% 50V
* A-1298-624-A		A BOARD, COMPLETE	***** (PVM-14N5MDE)	C202	1-126-964-11	ELECT	10μF 20% 50V
				C203	1-126-934-11	ELECT	220μF 20% 16V
				C204	1-126-964-11	ELECT	10μF 20% 50V
				C206	1-126-940-11	ELECT	330μF 20% 25V
				C207	1-163-017-00	CERAMIC CHIP	0.0047μF 10% 50V
				C208	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
				C301	1-126-960-11	ELECT	1μF 20% 50V
				C302	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
				C303	1-107-714-11	ELECT	10μF 20% 50V
				C304	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
				C305	1-126-964-11	ELECT	10μF 20% 50V
				C306	1-126-964-11	ELECT	10μF 20% 50V
				C307	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
				C308	1-126-961-11	ELECT	2.2μF 20% 50V
				C309	1-164-182-11	CERAMIC CHIP 0.0033μF	10% 50V
				C310	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
							(PVM-14N6A/E/U, 20N6A/E/U)
				C311	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
							(PVM-14N6A/E/U, 20N6A/E/U)
				C312	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
							(PVM-14N6A/E/U, 20N6A/E/U)
1-533-223-11		HOLDER, FUSE					
1-540-044-11		SOCKET, IC					
4-200-407-01		HOLDER, LED					
4-201-023-01		SPACER, INSULATING					
4-202-373-01		SPRING, IC					

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C313	1-163-023-00	CERAMIC CHIP 0.015μF	10% 50V	C373	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
C314	1-163-023-00	CERAMIC CHIP 0.015μF	10% 50V	C374	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
C315	1-163-023-00	CERAMIC CHIP 0.015μF	10% 50V	C375	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
C316	1-115-339-11	CERAMIC CHIP 0.1μF	10% 50V	C376	1-102-973-00	CERAMIC 100PF	5% 50V
C377	1-163-251-11	CERAMIC CHIP 100PF	5% 50V				
C317	1-126-940-11	ELECT 330μF	20% 25V	C378	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
C318	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C379	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
C319	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V	C380	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C320	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V	C381	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C321	1-126-964-11	ELECT 10μF	20% 50V	C382	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C322	1-126-963-11	ELECT 4.7μF	20% 50V	C383	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C323	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V	C384	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C324	1-126-933-11	ELECT 100μF	20% 16V	C385	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C325	1-115-339-11	CERAMIC CHIP 0.1μF	10% 50V	C386	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C326	1-126-957-11	ELECT 0.22μF	20% 50V	C387	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C327	1-102-110-00	CERAMIC 220PF	10% 50V	C388	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V
C328	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C389	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C329	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	C390	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C330	1-136-177-00	FILM 1μF	5% 50V	C401	1-126-964-11	ELECT 10μF	20% 50V
C331	1-101-810-00	CERAMIC 100PF	5% 500V	C402	1-126-964-11	ELECT 10μF	20% 50V
C332	1-136-177-00	FILM 1μF	5% 50V	C403	1-107-714-11	ELECT 10μF	20% 50V
C333	1-115-339-11	CERAMIC CHIP 0.1μF	10% 50V	C404	1-126-964-11	ELECT 10μF	20% 50V
C334	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V	C405	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C335	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	C406	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C336	1-126-964-11	ELECT 10μF	20% 50V	C407	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C337	1-115-339-11	CERAMIC CHIP 0.1μF	10% 50V	C408	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C338	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C409	1-126-964-11	ELECT 10μF	20% 50V
C339	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C410	1-115-339-11	CERAMIC CHIP 0.1μF	10% 50V
C340	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C411	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C341	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V	C412	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C342	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C413	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C343	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C414	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C344	1-102-514-11	CERAMIC 22PF	5% 50V	C415	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C345	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V	C416	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C351	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V	C417	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C352	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V				
C353	1-126-940-11	ELECT 330μF	20% 25V	C417	1-216-295-91	SHORT 0	
C354	1-163-235-11	CERAMIC CHIP 22PF	5% 50V				(SSM-14N5A/E/U, 20N5A/E/U)
C355	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	C418	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
			(20inch model)				(except SSM-14N5A/E/U, 20N5A/E/U)
C355	1-163-263-11	CERAMIC CHIP 330PF	5% 50V	C418	1-216-295-91	SHORT 0	
			(14inch model)				(SSM-14N5A/E/U, 20N5A/E/U)
C356	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C419	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C357	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V				(except SSM-14N5A/E/U, 20N5A/E/U)
C358	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C419	1-216-295-91	SHORT 0	
C359	1-163-131-00	CERAMIC CHIP 390PF	5% 50V				(SSM-14N5A/E/U, 20N5A/E/U)
			(20inch model)	C420	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C359	1-163-263-11	CERAMIC CHIP 330PF	5% 50V				(except SSM-14N5A/E/U, 20N5A/E/U)
			(14inch model)	C420	1-216-295-91	SHORT 0	
C360	1-163-121-00	CERAMIC CHIP 150PF	5% 50V				(SSM-14N5A/E/U, 20N5A/E/U)
C361	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V	C421	1-126-933-11	ELECT 100μF	20% 16V
C362	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	C422	1-115-339-11	CERAMIC CHIP 0.1μF	10% 50V
C363	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	C423	1-126-933-11	ELECT 100μF	20% 16V
			(20inch model)	C424	1-115-339-11	CERAMIC CHIP 0.1μF	10% 50V
C363	1-163-263-11	CERAMIC CHIP 330PF	5% 50V	C425	1-126-940-11	ELECT 330μF	20% 25V
			(14inch model)	C426	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V
C364	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C500	1-123-024-21	ELECT 33μF	160V
C366	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V	C501	△ 1-117-648-11	FILM 15000PF	3% 1.2KV
C367	1-126-933-11	ELECT 100μF	20% 16V				
C368	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V				
C372	1-163-021-91	CERAMIC CHIP 0.01μF	10% 50V				

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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C502	△ 1-130-077-91 FILM	0.018μF	5% 400V (20inch model)	C660	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C502	△ 1-129-716-91 FILM	0.015μF	5% 630V (14inch model)	C661	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C503	△ 1-162-116-91 CERAMIC	680PF	10% 2KV	C662	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C504	△ 1-162-116-91 CERAMIC	680PF	10% 2KV	C663	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C505	1-130-489-00 FILM	0.033μF	5% 50V	C664	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C506	1-136-541-11 FILM	1.5μF	5% 200V	C671	1-126-964-11 ELECT	10μF	20% 50V
C507	1-136-113-00 FILM	2μF	5% 200V	C1401	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C508	1-102-228-00 CERAMIC	470PF	10% 500V	C1402	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
C509	1-107-636-11 ELECT	10μF	20% 160V	C1403	1-102-514-11 CERAMIC	22PF	5% 50V
C510	1-136-105-00 FILM	0.33μF	5% 200V (20inch model)	C1404	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C510	1-136-103-00 FILM	0.1μF	5% 200V (14inch model)	C1405	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C511	1-106-371-00 MYLAR	0.015μF	200V	C1406	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C512	1-102-228-00 CERAMIC	470PF	10% 500V	C1407	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C513	1-163-235-11 CERAMIC CHIP	22PF	5% 50V	C1408	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C514	1-107-924-11 ELECT	0.47μF	20% 50V	C1409	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C516	1-126-941-11 ELECT	470μF	20% 25V	C1410	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C517	1-101-810-00 CERAMIC	100PF	5% 500V	C1411	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C518	1-126-941-11 ELECT	470μF	20% 25V	C1412	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C519	1-101-810-00 CERAMIC	100PF	5% 500V	C1413	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C522	1-107-638-11 ELECT	33μF	20% 160V	C1414	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C523	1-162-114-00 CERAMIC	0.0047μF	2KV	C1415	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C524	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V	C1416	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C525	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V	C1417	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C551	1-107-910-11 ELECT	100μF	20% 50V	C1418	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C552	1-137-401-11 FILM	0.22μF	10% 100V	C1419	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C553	1-107-905-11 ELECT	4.7μF	20% 50V	C1420	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C554	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V	C1421	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C555	1-126-964-11 ELECT	10μF	20% 50V	C1422	1-163-251-11 CERAMIC CHIP	100PF	5% 50V
C556	1-126-964-11 ELECT	10μF	20% 50V	C1423	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
C557	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V	C1424	1-102-129-00 CERAMIC	0.01μF	10% 50V
C559	1-164-004-11 CERAMIC CHIP	0.1μF	10% 25V	C1425	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C601	△ 1-107-564-11 FILM	0.22μF	20% 300V	C1426	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C602	△ 1-107-564-11 FILM	0.22μF	20% 300V	C1427	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C603	△ 1-113-912-51 CERAMIC	0.0047μF	20% 250V	C1428	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C604	△ 1-113-912-51 CERAMIC	0.0047μF	20% 250V	C1429	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
C605	△ 1-113-912-51 CERAMIC	0.0047μF	20% 250V	C1430	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C606	△ 1-113-912-51 CERAMIC	0.0047μF	20% 250V	C1431	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C607	1-113-608-11 ELECT(BLOCK)	470μF	20% 400V	C1432	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C609	1-136-064-00 FILM	0.002μF	3% 2KV	C1433	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C610	1-126-970-11 ELECT	330μF	20% 50V	C1434	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C611	1-164-161-11 CERAMIC CHIP	0.0022μF	10% 50V	C1435	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C612	1-107-911-11 ELECT	220μF	20% 50V	C1436	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C613	1-137-484-11 FILM	0.47μF	10% 630V	C1437	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
C615	△ 1-107-564-11 FILM	0.22μF	20% 300V	C1438	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
C616	△ 1-115-385-91 CERAMIC	0.0022μF	20% 125V	C1439	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
C617	△ 1-115-385-91 CERAMIC	0.0022μF	20% 125V	C1440	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
C618	△ 1-115-385-91 CERAMIC	0.0022μF	20% 125V	C1441	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C619	△ 1-115-385-91 CERAMIC	0.0022μF	20% 125V	C1442	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
C651	1-117-791-11 ELECT(BLOCK)	1000μF	20% 160V	C1443	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
C652	1-107-914-11 ELECT	1000μF	20% 25V	C1444	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C653	1-107-891-11 ELECT	3300μF	20% 25V	C1445	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C654	1-107-364-11 FILM	0.01μF	10% 200V	C1446	1-163-021-91 CERAMIC CHIP	0.01μF	10% 50V
C655	1-126-964-11 ELECT	10μF	20% 50V	C1447	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C657	1-163-251-11 CERAMIC CHIP	100PF	5% 50V	C1448	1-163-235-11 CERAMIC CHIP	22PF	5% 50V
C658	1-162-131-11 CERAMIC	220PF	10% 2KV	C1449	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
				C1450	1-163-259-91 CERAMIC CHIP	220PF	5% 50V
				C1451	1-102-514-11 CERAMIC	22PF	5% 50V
				C1452	1-115-339-11 CERAMIC CHIP	0.1μF	10% 50V
				C1453	1-101-810-00 CERAMIC	100PF	5% 500✓
				C1454	1-101-810-00 CERAMIC	100PF	5% 500✓
				C1455	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V
				C1456	1-163-009-11 CERAMIC CHIP	0.001μF	10% 50V

Ref.No.	Part No.	Description	Remark		Ref.No.	Part No.	Description	Remark						
C1457	1-163-245-11	CERAMIC CHIP 56PF	5%	50V	D103	8-719-302-43	DIODE EL1Z							
C1458	1-163-259-91	CERAMIC CHIP 220PF	5%	50V	D201	8-719-947-26	DIODE MTZJ-T-72-6.2C							
C1459	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	D301	8-719-109-85	DIODE RD5.1ESB2							
C1460	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	D302	8-719-302-43	DIODE EL1Z							
C1461	1-163-259-91	CERAMIC CHIP 220PF	5%	50V	D351	8-719-914-43	DIODE DAN202K							
C1462	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	D352	8-719-914-43	DIODE DAN202K							
C1463	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	D353	8-719-914-43	DIODE DAN202K							
C1464	1-115-339-11	CERAMIC CHIP 0.1 μ F	10%	50V	D501	8-719-945-80	DIODE ERC06-15S							
C1465	1-115-339-11	CERAMIC CHIP 0.1 μ F	10%	50V	D502	8-719-979-85	DIODE EGP20G							
C1466	1-115-339-11	CERAMIC CHIP 0.1 μ F	10%	50V	D503	8-719-908-03	DIODE GP08D							
C1467	1-163-021-91	CERAMIC CHIP 0.01 μ F	10%	50V	D504	8-719-908-03	DIODE GP08D							
C1468	1-101-810-00	CERAMIC 100PF	5%	500V	D506	8-719-302-43	DIODE EL1Z							
C1469	1-163-021-91	CERAMIC CHIP 0.01 μ F	10%	50V	D507	8-719-302-43	DIODE EL1Z							
C1471	1-163-009-11	CERAMIC CHIP 0.001 μ F	10%	50V	D508	8-719-302-43	DIODE EL1Z							
C1475	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	D509	8-719-028-72	DIODE RGP02-17EL-6433							
C1476	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	D510	1-249-377-11	CARBON 0.47	5% 1/4W F						
C1477	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	D511	8-719-914-43	DIODE DAN202K							
C1478	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	D551	8-719-908-03	DIODE GP08D							
C1479	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	D552	8-719-109-85	DIODE RD5.1ESB2							
C1481	1-163-009-11	CERAMIC CHIP 0.001 μ F	10%	50V	D601	△ 8-719-025-88	DIODE GBU4JL-6088							
C1483	1-163-259-91	CERAMIC CHIP 220PF	5%	50V	D605	8-719-302-43	DIODE EL1Z							
C1484	1-163-229-11	CERAMIC CHIP 12PF	5%	50V	D606	8-719-921-63	DIODE MTZJ-7.5B							
C1485	1-163-229-11	CERAMIC CHIP 12PF	5%	50V	D607	8-719-302-43	DIODE EL1Z							
C1486	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	D609	8-719-302-43	DIODE EL1Z							
C1487	1-163-009-11	CERAMIC CHIP 0.001 μ F	10%	50V	D610	8-719-302-43	DIODE EL1Z							
C1488	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	D611	8-719-991-33	DIODE 1SS133T-77							
C1601	△ 1-801-267-11	VARISTOR TNR10V 431K 660			D651	8-719-312-10	DIODE RU4AM-T3							
					D653	8-719-045-48	DIODE FML-G12S							
					D656	8-719-046-66	DIODE SLR-56MC3F							
<CONNECTOR>														
CN051	* 1-564-508-11	PLUG, CONNECTOR 5P			<FUSE>									
CN052	* 1-770-747-11	CONNECTOR, BOARD TO BOARD 12P			F601	△ 1-576-231-11	FUSE (H.B.C.) (4A/250V)							
CN201	* 1-564-506-11	PLUG, CONNECTOR 3P			F602	△ 1-576-231-11	FUSE (4A/250V) (PVM-14N5MDE)							
CN351	* 1-564-509-11	PLUG, CONNECTOR 6P			F651	△ 1-532-745-11	FUSE, GLASS TUBE (3.15A/125V)							
CN401	* 1-564-509-11	PLUG, CONNECTOR 6P												
CN402	* 1-564-510-11	PLUG, CONNECTOR 7P (except SSM-14N5A/E/U, 20N5A/E/U)			<FERRITE BEAD>									
CN403	* 1-564-510-11	PLUG, CONNECTOR 7P (except PVM-14N5A/E/U, 14N5MDE, 20N5A/E/U)			FB001	1-410-397-21	FERRITE 1.1 μ H							
CN501	* 1-580-798-11	CONNECTOR PIN (DY) 6P			FB601	1-410-396-41	FERRITE 0.45 μ H							
CN502	* 1-508-768-00	PIN, CONNECTOR (5mm PITCH) 6P			FB602	1-410-396-41	FERRITE 0.45 μ H							
CN601	* 1-580-843-11	PIN, CONNECTOR (POWER)			FB603	1-410-396-41	FERRITE 0.45 μ H							
CN602	* 1-508-765-00	PIN, CONNECTOR (5mm PITCH) 3P			JW390	1-543-840-11	FERRITE 0 μ H							
CN651	1-695-915-11	TAB (CONTACT)												
<COMPOSITION CIRCUIT BLOCK>														
CP301	1-467-554-21	FILTER BLOCK, COMB			IC001	8-752-895-94	IC CXP85116B-670S							
					IC002	8-759-527-68	IC M24C01-BN6							
					IC003	8-759-279-41	IC MM1096BD							
					IC201	8-759-324-57	IC TDA7052A							
					IC301	8-752-088-38	IC CXA2060BS							
					IC401	8-759-000-48	IC MC14052BCP (except SSM-14N5A/E/U, 20N5A/E/U)							
					IC402	8-759-984-96	IC BA7604N (except SSM-14N5A/E/U, 20N5A/E/U)							
					IC551	8-759-192-71	IC STV9379							
					IC552	8-759-145-58	IC μ PC4558C							
					IC601	8-749-010-84	IC STR-S6708							
					IC651	8-749-921-89	IC SE115N							

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark				
IC652	8-759-231-53	IC TA7805S		Q365	8-729-026-48	TRANSISTOR 2SA1037AK-T146-Q					
IC654	8-759-701-59	IC NJM78M09FA		Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
<CHIP CONDUCTOR>											
JR001	1-216-295-91	SHORT	0	Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
JR002	1-216-295-91	SHORT	0	Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
JR003	1-216-295-91	SHORT	0	Q404	8-729-120-28	TRANSISTOR 2SC1623-L5L6					
JR004	1-216-295-91	SHORT	0	Q501	8-729-810-49	TRANSISTOR 2SD1877S-SONY-CA	(14inch model)				
JR005	1-216-295-91	SHORT	0	Q501	8-729-821-87	TRANSISTOR 2SD1878-CA	(20inch model)				
JR006	1-216-295-91	SHORT	0	Q502	8-729-140-50	TRANSISTOR 2SC3209LK					
JR007	1-216-295-91	SHORT	0	Q551	8-729-019-01	TRANSISTOR 2SD2394-EF					
JR008	1-216-295-91	SHORT	0	Q601	8-729-025-04	TRANSISTOR 2SC3852A					
JR009	1-216-295-91	SHORT	0	<RESISTOR>							
JR010	1-216-295-91	SHORT	0	R001	1-216-073-00	RES,CHIP	10K 5% 1/10W				
<COIL>											
L001	1-408-603-31	INDUCTOR 10 μ H		R002	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L101	1-421-465-00	COIL, FERRITE CHOKE 68 μ H		R003	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L501	1-421-465-00	COIL, FERRITE CHOKE 68 μ H		R004	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L502	△ 1-459-105-21	COIL 2.7 μ H		R005	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L503	1-412-553-11	INDUCTOR 3.3mH		R006	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L504	1-459-104-00	COIL, WITH CORE		R007	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L505	△ 1-459-760-13	COIL, HORIZONTAL LINEARITY	(14inch model)	R008	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L505	△ 1-459-769-13	COIL, HORIZONTAL LINEARITY	(20inch model)	R009	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L510	1-407-365-00	COIL,CHOKE		R010	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L551	1-459-104-00	COIL, WITH CORE		R011	1-216-073-00	RES,CHIP	10K 5% 1/10W				
L601	1-411-541-11	COIL, CHOKE 7.2 μ H		R012	1-216-073-00	RES,CHIP	10K 5% 1/10W				
<PHOTO COUPLER>											
PH601	8-749-923-50	PHOTO COUPLER PC111YS		R013	1-216-073-00	RES,CHIP	10K 5% 1/10W				
<TRANSISTOR>											
Q004	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R014	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q005	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R015	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q101	8-729-200-17	TRANSISTOR 2SA1091-O		R016	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R017	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q201	8-729-019-01	TRANSISTOR 2SD2394-EF		R018	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R019	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R020	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q351	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R021	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q352	8-729-026-48	TRANSISTOR 2SA1037AK-T146-Q		R022	1-216-025-00	RES,CHIP	100 5% 1/10W				
Q353	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R023	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q354	8-729-026-48	TRANSISTOR 2SA1037AK-T146-Q		R024	1-249-393-11	CARBON	10 5% 1/4W				
Q355	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R025	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q356	8-729-026-48	TRANSISTOR 2SA1037AK-T146-Q		R027	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q357	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R028	1-249-393-11	CARBON	10 5% 1/4W				
Q358	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R029	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q359	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R030	1-249-393-11	CARBON	10 5% 1/4W				
Q360	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R031	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q361	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R032	1-249-393-11	CARBON	10 5% 1/4W				
Q362	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R033	1-216-073-00	RES,CHIP	10K 5% 1/10W				
Q363	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R035	1-216-295-91	SHORT	0				
Q364	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R036	1-216-025-91	RES,CHIP	100 5% 1/10W				
				R037	1-216-025-91	RES,CHIP	100 5% 1/10W				
				R038	1-216-025-91	RES,CHIP	100 5% 1/10W				
				R039	1-216-025-91	RES,CHIP	100 5% 1/10W				
				R040	1-216-073-00	RES,CHIP	10K 5% 1/10W				
				R041	1-216-073-00	RES,CHIP	10K 5% 1/10W				
				R042	1-216-025-00	RES,CHIP	100 5% 1/10W				

Ref.No.	Part No.	Description	Remark		Ref.No.	Part No.	Description	Remark		
R043	1-216-025-00	RES,CHIP	100	5%	1/10W	R325	1-216-075-00	RES,CHIP	12K	5% 1/10W (14inch model)
R044	1-216-073-00	RES,CHIP	10K	5%	1/10W	R326	1-216-059-00	RES,CHIP	2.7K	5% 1/10W (20inch model)
R045	1-216-049-91	RES,CHIP	1K	5%	1/10W	R326	1-216-063-91	RES,CHIP	3.9K	5% 1/10W (14inch model)
R057	1-216-073-00	RES,CHIP	10K	5%	1/10W	R327	1-216-097-91	RES,CHIP	100K	5% 1/10W
R058	1-216-073-00	RES,CHIP	10K	5%	1/10W	R328	1-216-073-00	RES,CHIP	10K	5% 1/10W
R059	1-216-073-00	RES,CHIP	10K	5%	1/10W	R329	1-216-001-00	RES,CHIP	10	5% 1/10W
R060	1-216-073-00	RES,CHIP	10K	5%	1/10W	R330	1-216-025-91	RES,CHIP	100	5% 1/10W
R101	1-216-390-11	METAL OXIDE		1.25%3W	F (20inch model)	R331	1-216-033-00	RES, CHIP	220	5% 1/10W
R101	1-216-391-11	METAL OXIDE	1.5	5%	3W F (14inch model)	R332	1-216-073-00	RES,CHIP	10K	5% 1/10W
R102	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	R333	1-216-025-91	RES,CHIP	100	5% 1/10W
R103	1-216-115-00	RES,CHIP	560K	5%	1/10W	R351	1-216-670-11	METAL CHIP	6.2K	0.50%1/10W (14inch model)
R104	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	R351	1-216-679-11	METAL CHIP	15K	0.50%1/10W (20inch model)
R105	1-218-756-11	METAL CHIP	150K	0.50%	1/10W	R352	1-216-049-91	RES,CHIP	1K	5% 1/10W
R106	1-216-097-91	RES,CHIP	100K	5%	1/10W	R353	1-249-393-11	CARBON	10	5% 1/4W
R107	1-216-097-91	RES,CHIP	100K	5%	1/10W	R354	1-249-393-11	CARBON	10	5% 1/4W
R108	△ 1-218-756-91	METAL CHIP	150K	0.50%	1/10W (20inch model)	R355	1-249-393-11	CARBON	10	5% 1/4W
R108	△ 1-218-758-91	METAL CHIP	180K	0.50%	1/10W (14inch model)	R356	1-216-059-00	RES,CHIP	2.7K	5% 1/10W
R110	△ 1-218-768-91	METAL CHIP	470K	0.50%	1/10W (14inch model)	R357	1-216-638-11	METAL CHIP	300	0.50%1/10W (20inch model)
R110	△ 1-218-769-91	METAL CHIP	510K	0.50%	1/10W (20inch model)	R357	1-216-641-11	METAL CHIP	390	0.50%1/10W (14inch model)
R201	1-216-093-00	RES,CHIP	68K	5%	1/10W	R358	1-216-017-91	RES,CHIP	47	5% 1/10W
R202	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	R360	1-216-059-00	RES,CHIP	2.7K	5% 1/10W
R203	1-216-049-91	RES,CHIP	1K	5%	1/10W	R361	1-216-638-11	METAL CHIP	300	0.50%1/10W (20inch model)
R204	1-215-907-11	METAL OXIDE	22	5%	3W F	R361	1-216-641-11	METAL CHIP	390	0.50%1/10W (14inch model)
R205	1-216-056-00	RES,CHIP	2K	5%	1/10W	R362	1-216-017-91	RES,CHIP	47	5% 1/10W
R207	1-216-055-00	RES,CHIP	1.8K	5%	1/10W	R364	1-216-059-00	RES,CHIP	2.7K	5% 1/10W
R208	1-216-065-00	RES,CHIP	4.7K	5%	1/10W	R365	1-216-638-11	METAL CHIP	300	0.50%1/10W (20inch model)
R209	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	R365	1-216-641-11	METAL CHIP	390	0.50%1/10W (14inch model)
R210	1-216-073-00	RES,CHIP	10K	5%	1/10W	R366	1-216-017-91	RES,CHIP	47	5% 1/10W
R211	1-216-073-00	RES,CHIP	10K	5%	1/10W	R368	1-216-073-00	RES,CHIP	10K	5% 1/10W
R301	1-216-025-91	RES,CHIP	100	5%	1/10W	R369	1-216-073-00	RES,CHIP	10K	5% 1/10W
R301	1-216-0675-11	METAL CHIP	10K	0.50%	1/10W	R370	1-216-073-00	RES,CHIP	10K	5% 1/10W
R303	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	R371	1-216-073-00	RES,CHIP	10K	5% 1/10W
R304	1-216-081-00	RES,CHIP	22K	5%	1/10W	R372	1-216-073-00	RES,CHIP	10K	5% 1/10W
R305	1-216-001-00	RES,CHIP	10	5%	1/10W	R373	1-216-073-00	RES,CHIP	10K	5% 1/10W
R306	1-216-001-00	RES,CHIP	10	5%	1/10W	R374	1-216-073-00	RES,CHIP	10K	5% 1/10W
R307	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	R375	1-249-429-11	CARBON	10K	5% 1/4W
R308	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	R371	1-216-073-00	RES,CHIP	10K	5% 1/10W
R309	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	R372	1-216-073-00	RES,CHIP	10K	5% 1/10W
R310	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	R373	1-216-073-00	RES,CHIP	10K	5% 1/10W
R311	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	R374	1-216-073-00	RES,CHIP	10K	5% 1/10W
R312	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	R375	1-249-429-11	CARBON	10K	5% 1/4W
R313	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	R376	1-216-073-00	RES,CHIP	10K	5% 1/10W
R314	1-216-001-00	RES,CHIP	10	5%	1/10W	R377	1-216-049-91	RES,CHIP	1K	5% 1/10W
R315	1-216-001-00	RES,CHIP	10	5%	1/10W	R378	1-215-437-00	METAL	4.7K	1% 1/4W (20inch model)
R316	1-216-001-00	RES,CHIP	10	5%	1/10W	R378	1-215-440-00	METAL	6.2K	1% 1/4W (14inch model)
R317	1-216-073-00	RES,CHIP	10K	5%	1/10W	R379	1-249-429-11	CARBON	10K	5% 1/4W
R318	1-216-049-91	RES,CHIP	1K	5%	1/10W	R380	1-216-073-00	RES,CHIP	10K	5% 1/10W
R319	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	R381	1-216-049-91	RES,CHIP	1K	5% 1/10W
R320	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	R382	1-215-435-00	METAL	3.9K	1% 1/4W (20inch model)
R321	1-216-073-00	RES,CHIP	10K	5%	1/10W	R382	1-215-438-00	METAL	5.1K	1% 1/4W (14inch model)
R322	1-216-073-00	RES,CHIP	10K	5%	1/10W	R383	1-216-073-00	RES,CHIP	10K	5% 1/10W
R323	1-216-067-00	RES,CHIP	5.6K	5%	1/10W					
R324	1-202-826-00	SOLID	4.7K	10%	1/2W					
R325	1-216-071-00	RES,CHIP	8.2K	5%	1/10W (20inch model)					

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Ref.No.	Part No.	Description	Remark		Ref.No.	Part No.	Description	Remark		
R384	1-216-073-00	RES,CHIP	10K	5%	1/10W	R559	1-216-077-00	RES, CHIP	15K	5% 1/10W (14inch model)
R385	1-216-049-91	RES,CHIP	1K	5%	1/10W	R560	1-216-097-91	RES,CHIP	100K	5% 1/10W (20inch model)
R386	1-215-433-00	METAL	3.3K	1%	1/4W (20inch model)	R560	1-216-105-91	RES, CHIP	220K	5% 1/10W (14inch model)
R386	1-215-436-00	METAL	4.3K	1%	1/4W (14inch model)	R561	1-249-392-11	CARBON	8.2	5% 1/4W F (20inch model)
R387	1-216-073-00	RES,CHIP	10K	5%	1/10W	R561	1-532-727-11	LINK, IC (0.25A/150V)	(14inch model)	
R388	1-216-073-00	RES,CHIP	10K	5%	1/10W	R562	1-216-670-11	METAL CHIP	6.2K	0.50%1/10W (14inch model)
R389	1-216-049-91	RES,CHIP	1K	5%	1/10W	R562	1-216-675-11	METAL CHIP	10K	0.50%1/10W (20inch model)
R390	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W (20inch model)	R563	1-216-675-11	METAL CHIP	10K	0.50%1/10W
R390	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W (14inch model)	R564	1-216-061-00	RES,CHIP	3.3K	5% 1/10W
R391	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W (14inch model)	R565	1-216-049-91	RES,CHIP	1K	5% 1/10W
R391	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W (20inch model)	R569	1-216-113-00	RES,CHIP	470K	5% 1/10W
R392	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W (14inch model)	R570	1-216-421-11	METAL OXIDE	12	5% 1W F (20inch model)
R392	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W (20inch model)	R570	1-216-422-11	METAL OXIDE	18	5% 1W F (14inch model)
R393	1-216-001-00	RES,CHIP	10	5%	1/10W	R571	1-216-049-91	RES,CHIP	1K	5% 1/10W
R394	1-216-001-00	RES,CHIP	10	5%	1/10W	R601	△ 1-202-885-91	SOLID	1M	20% 1/2W
R395	1-216-683-11	METAL CHIP	22K	0.50%	1/10W (14inch model)	R602	1-216-490-11	METAL OXIDE	39K	5% 3W F
R395	1-216-691-11	METAL CHIP	47K	0.50%	1/10W (20inch model)	R604	1-215-877-11	METAL OXIDE	22K	5% 1W F
R401	1-216-049-91	RES,CHIP	1K	5%	1/10W	R605	1-215-869-11	METAL OXIDE	1K	5% 1W F
R402	1-216-049-91	RES,CHIP	1K	5%	1/10W	R606	1-249-421-11	CARBON	2.2K	5% 1/4W
R403	1-216-049-91	RES,CHIP	1K	5%	1/10W	R607	1-249-417-11	CARBON	1K	5% 1/4W
R404	1-216-049-91	RES,CHIP	1K	5%	1/10W	R608	1-217-241-00	WIREWOUND	0.22	10% 3W F
R405	1-216-049-91	RES,CHIP	1K	5%	1/10W	R609	1-247-807-31	CARBON	100	5% 1/4W
R406	1-216-073-00	RES,CHIP	10K	5%	1/10W	R610	1-216-471-11	METAL OXIDE	27	5% 3W F
R501	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	R611	1-249-417-11	CARBON	1K	5% 1/4W
R502	1-216-071-00	RES,CHIP	8.2K	5%	1/10W	R612	△ 1-205-998-11	CEMENTED	1	5% 10W (20inch model)
R503	1-215-895-11	METAL OXIDE	3.3K	5%	2W F (20inch model)	R612	△ 1-220-820-31	CEMENTED	1.5	5% 10W (14inch model)
R503	1-215-896-00	METAL OXIDE	4.7K	5%	2W F (14inch model)	R613	1-249-426-11	CARBON	5.6K	5% 1/4W
R506	1-260-326-11	CARBON	680	5%	1/2W	R614	△ 1-202-725-91	SOLID	3.3M	10% 1/2W
R507	1-216-423-11	METAL OXIDE	27	5%	1W F	R615	△ 1-202-725-91	SOLID	3.3M	10% 1/2W
R508	1-215-860-11	METAL OXIDE	33	5%	1W F (20inch model)	R616	△ 1-205-998-11	CEMENTED	1	5% 10W (20inch model)
R508	1-215-862-11	METAL OXIDE	68	5%	1W F (14inch model)	R616	△ 1-220-820-31	CEMENTED	1.5	5% 10W (14inch model)
R513	1-247-887-00	CARBON	220K	5%	1/4W	R622	1-249-424-11	CARBON	3.9K	5% 1/4W
R514	1-249-419-11	CARBON	1.5K	5%	1/4W F	R623	1-216-490-11	METAL OXIDE	39K	5% 3W F
R551	1-216-429-00	METAL OXIDE	270	5%	1W F	R657	1-249-417-11	CARBON	1K	5% 1/4W
R552	1-216-349-00	METAL OXIDE	1	5%	1W F	R1201	1-215-907-11	METAL OXIDE	22	5% 3W F
R553	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	R1401	1-216-073-00	RES,CHIP	10K	5% 1/10W
R554	1-216-684-91	METAL CHIP	24K	0.50%	1/10W (20inch model)	R1402	1-216-025-91	RES,CHIP	100	5% 1/10W
R554	1-216-686-11	METAL CHIP	30K	0.50%	1/10W (14inch model)	R1403	1-216-025-91	RES,CHIP	100	5% 1/10W
R556	1-244-805-91	CARBON	1.5	5%	1/2W	R1404	1-216-025-91	RES,CHIP	100	5% 1/10W
R557	1-216-684-91	METAL CHIP	24K	0.50%	1/10W (20inch model)	R1405	1-216-025-91	RES,CHIP	100	5% 1/10W
R557	1-216-686-11	METAL CHIP	30K	0.50%	1/10W (14inch model)	R1406	1-216-027-00	RES,CHIP	120	5% 1/10W
R558	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	R1407	1-216-027-00	RES,CHIP	120	5% 1/10W
R559	1-216-063-91	RES,CHIP	3.9K	5%	1/10W (20inch model)	R1408	1-216-027-00	RES,CHIP	120	5% 1/10W
R559	1-216-001-00	RES,CHIP	10	5%	1/10W	R1409	1-216-027-00	RES,CHIP	120	5% 1/10W
R559	1-216-001-00	RES,CHIP	10	5%	1/10W	R1410	1-216-027-00	RES,CHIP	120	5% 1/10W
R559	1-216-001-00	RES,CHIP	10	5%	1/10W	R1411	1-216-027-00	RES,CHIP	120	5% 1/10W
R559	1-216-001-00	RES,CHIP	10	5%	1/10W	R1412	1-247-807-31	CARBON	100	5% 1/4W
R559	1-216-001-00	RES,CHIP	10	5%	1/10W	R1414	1-216-001-00	RES,CHIP	10	5% 1/10W

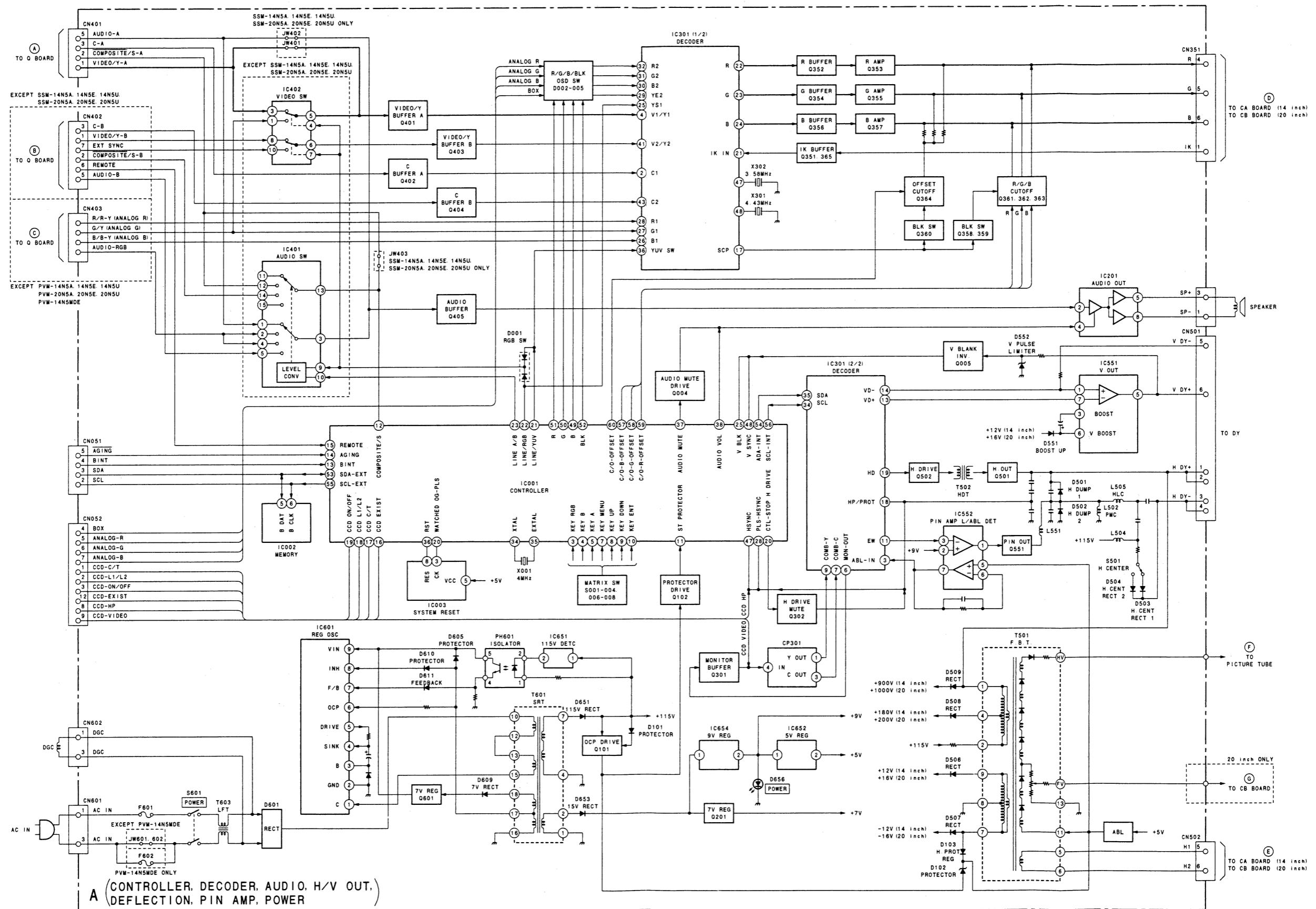
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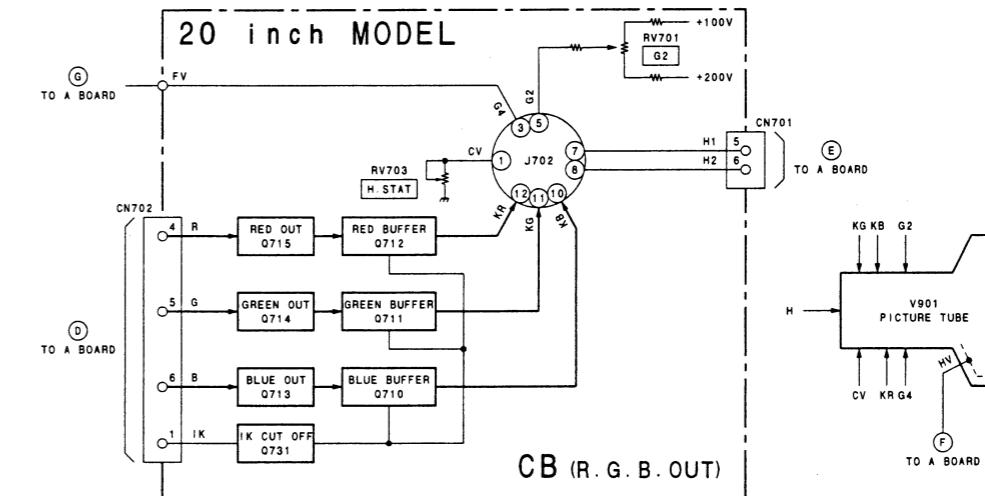
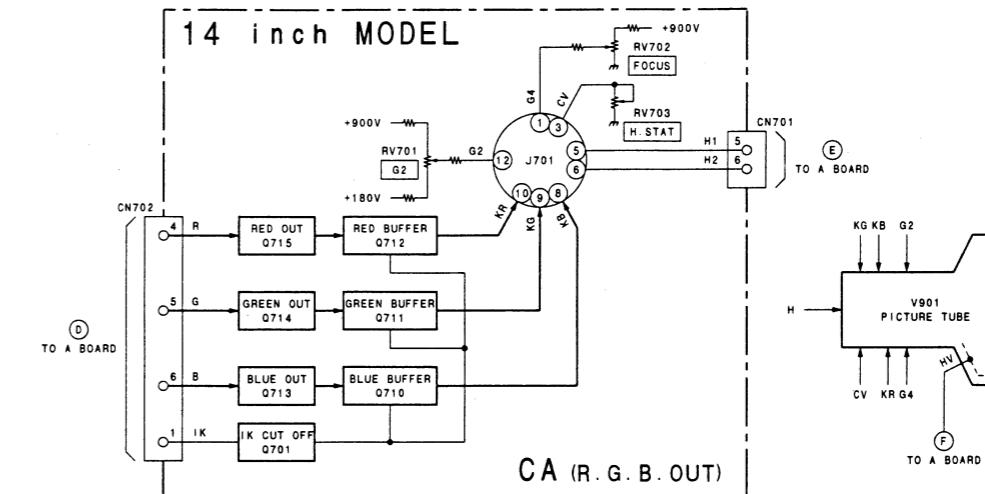
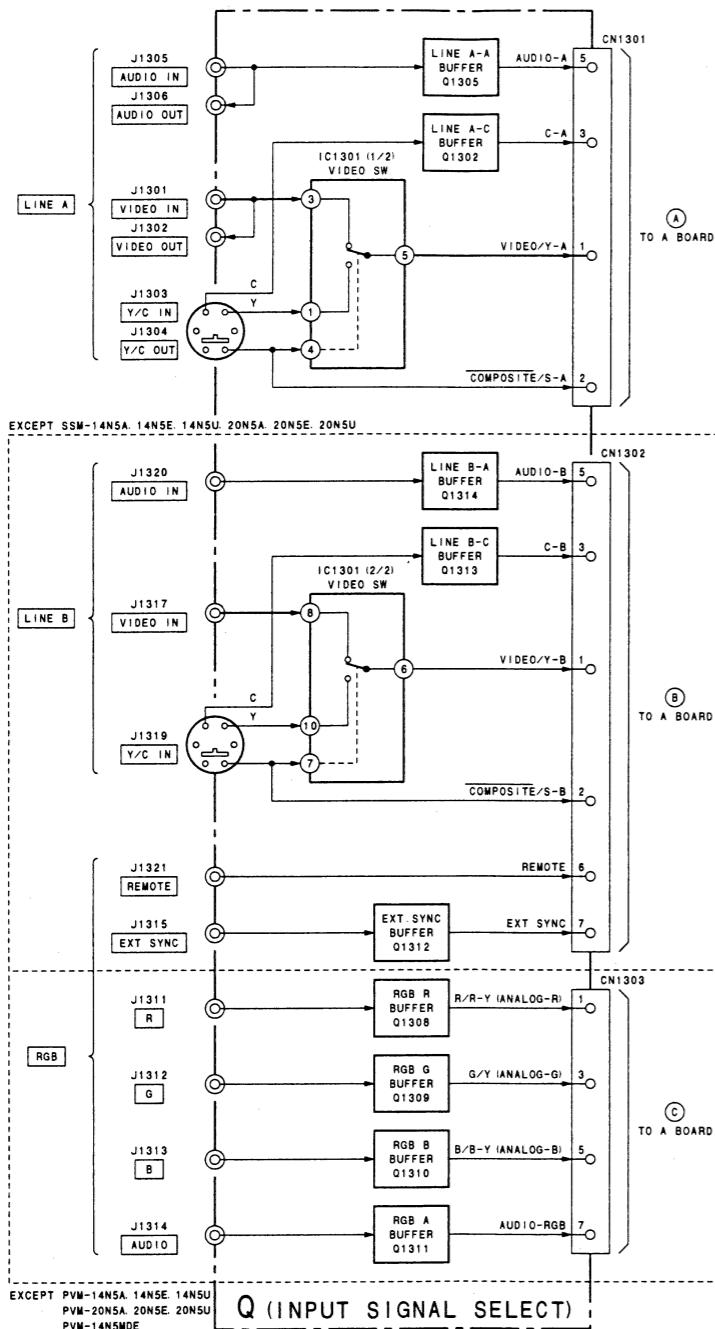
Ref.No.	Part No.	Description	Remark
ACCESSORIES AND PACKING MATERIALS			

	△ 1-534-827-21	CORD, POWER (US/CND model)	
	△ 1-551-631-22	CORD, POWER (PVM-14N5MDE)	
	△ 1-782-929-11	CORD, POWER SUPPLY (BS 3P)	
			(AEP, AUS model)
	3-864-152-11	MANUAL, INSTRUCTION	
		(SSM-14N5A/E/U, 20N5A/E/U) (ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH, CHINESE)	
	3-864-157-11	MANUAL, INSTRUCTION	
		(PVM-14N5A/E/U, 14N6A/E/U, PVM-20N5A/E/U, 20N6A/E/U) (ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH, CHINESE)	
	3-864-165-11	MANUAL, INSTRUCTION (PVM-14N5MDE)	
		(ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH, CHINESE)	
	4-048-073-01	COVER, DROP PROTECTION	
		(PVM-14N5MDE)	
*	4-048-606-01	INDIVIDUAL CARTON (14inch model)	
*	4-048-607-01	CUSHION (UPPER) (ASSY) (14inch model)	
*	4-048-608-01	CUSHION (LOWER) (ASSY)	
		(14inch model)	
*	4-048-473-01	INDIVIDUAL CARTON (20inch model)	
*	4-048-474-01	CUSHION UPPER (ASSY) (20inch model)	
*	4-048-475-01	CUSHION LOWER (ASSY) (20inch model)	
*	4-377-015-01	BAG, PROTECTION (14inch model)	
*	4-381-155-01	BAG, PROTECTION (20inch model)	

SECTION 9

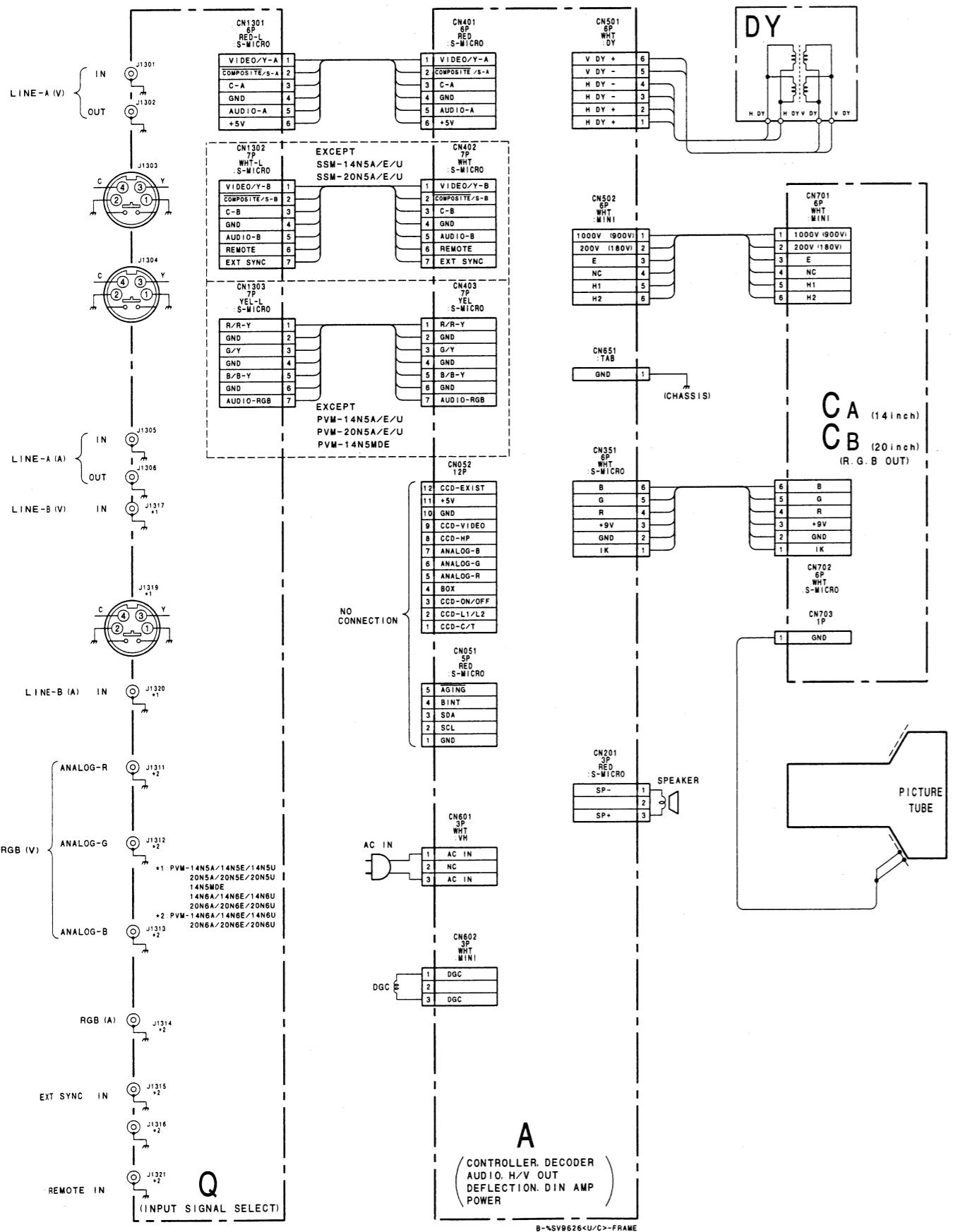
BLOCK DIAGRAMS





SECTION 10 DIAGRAMS

10-1. FRAME SCHEMATIC DIAGRAMS



10-2. SCHEMATIC DIAGRAMS/PRINTED WIRING BOARDS

Note:

- All capacitors are in μ F unless otherwise noted.
- PF: 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms, 1/4W in resistance, 1/10W in chip resistance.
- $k\Omega = 100$, $M\Omega = 1000$ k Ω
- \square : nonflammable resistor.
- Δ : internal component.
- $\boxed{\quad}$: panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The "4-1. +B Voltage Check" and "4-2. Protection Circuit (Hold-down circuit) Check" should always be performed when replacing the following components (marked \blacksquare on the schematic diagram).

Parts replaced (■)

C102, C331, C332, C333, C334, C335, C341, C390, C507, C1454, D102, D103, IC001, IC301, IC552, L505, Q102, R107, R108, R110, R324, R325, R326, R327, R328, R329, R330, T501

- Readings are taken with a color-bar signal input.
 - no mark : 20 inch
 - () : 14 inch
- Readings are taken with a 10 M digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform reference.
 - : B+ bus.
 - : B- bus.
 - : signal path.

The components identified by mark Δ are critical for safety. Replace only with part number specified.

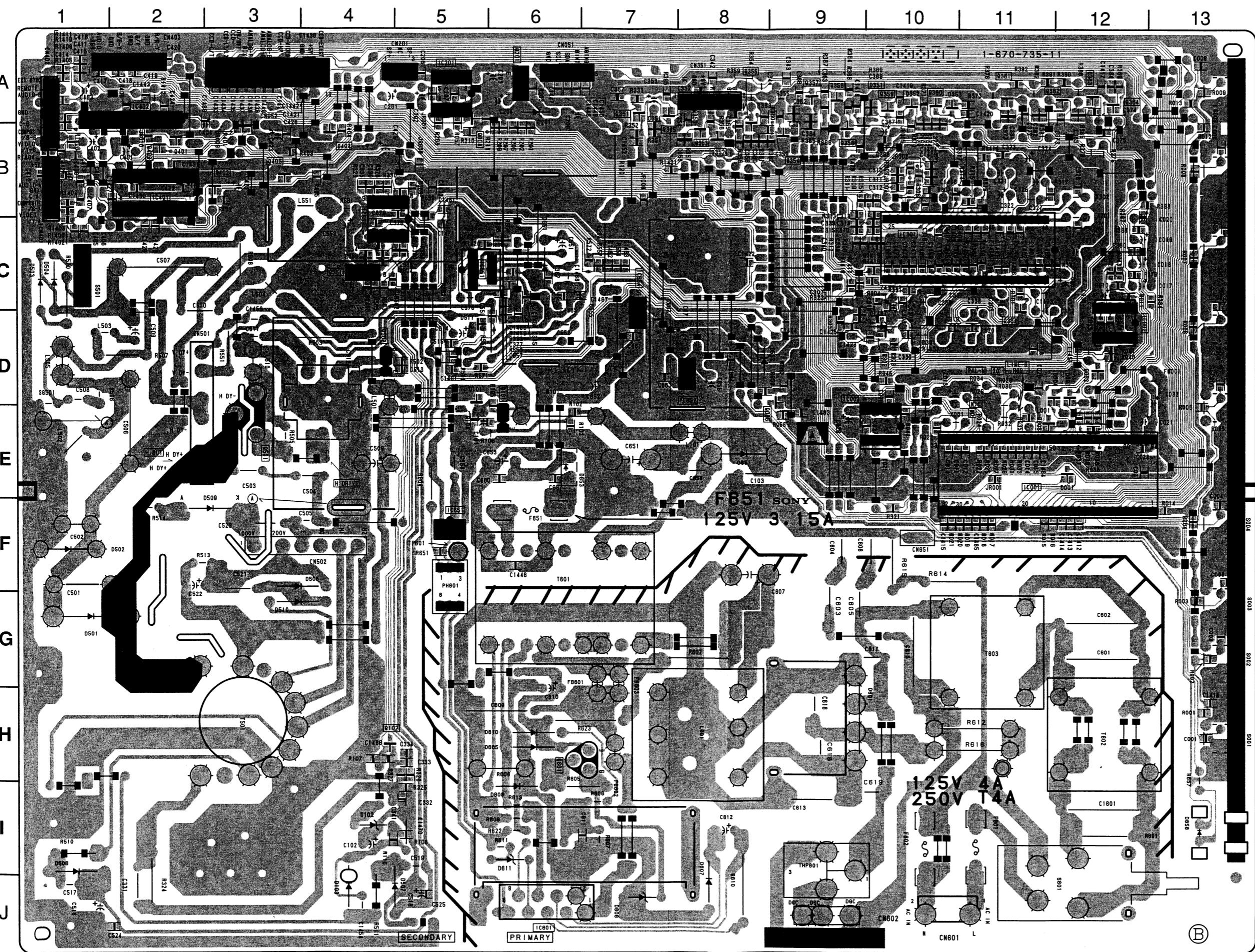
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Reference information

RESISTOR	: RN METAL FILM
	: RC SOLID
	: FPRD NONFLAMMABLE CARBON
	: FUSE NONFLAMMABLE FUSIBLE
	: RS NONFLAMMABLE METAL OXIDE
	: RB NONFLAMMABLE CEMENT
	: RW NONFLAMMABLE WIREWOUND
COIL	: LF-8L MICRO INDUCTOR
CAPACITOR	: TA TANTALUM
	: PS STYROL
	: PP POLYPROPYLENE
	: PT MYLAR
	: MPS METALIZED POLYESTER
	: MPP METALIZED POLYPROPYLENE
	: ALB BIPOLAR
	: ALT HIGH TEMPERATURE
	: ALR HIGH RIPPLE

A BOARD

A



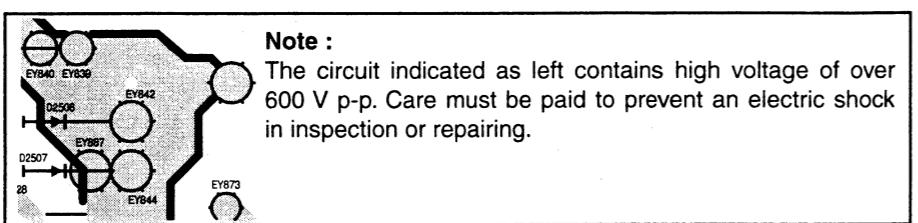
A -B SIDE-
SUFFIX: -11

A **A**

A BOARD

*: B SIDE

IC001 E-11
IC002 D-12
IC003 E-10
IC201 A-5
IC301 C-10
IC401 B-2
IC402 A-2
IC551 C-5
IC552 B-4
IC601 J-6
IC651 F-5
IC652 D-8
IC654 C-7



Q004 *A-5
Q005 *D-9
Q101 D-6
Q102 *H-4
Q201 A-6
Q301 *C-11
Q302 *D-10
Q351 *A-7
Q352 *B-8
Q353 *B-8
Q354 *B-9
Q355 *A-8
Q356 *A-9
Q357 *A-9
Q358 *B-9
Q359 *A-10
Q360 *A-10
Q361 *A-11
Q362 *A-12
Q363 *A-12
Q364 *A-12
Q365 *A-7
Q401 *B-2
Q402 *B-3
Q403 *B-2
Q404 *B-4
Q405 *B-3
Q501 E-3
Q502 D-4
Q551 C-4
Q601 H-6

D001 *E-12
D002 *D-12
D003 *D-12
D004 *D-12
D005 *E-11
D101 *D-5
D102 I-4
D103 J-4
D201 A-6
D301 D-10
D302 I-4
D351 *A-10
D352 *A-10
D353 *A-10
D501 G-1
D502 F-1
D503 C-1
D504 C-1
D506 I-1
D507 J-5
D508 F-3
D509 F-3
D511 *D-5
D551 C-6
D552 D-8
D601 H-9
D605 H-6
D606 J-7
D607 I-8
D609 H-6
D610 H-6
D611 I-6
D651 E-8
D653 E-6
D656 I-13

TP601 F-5

1

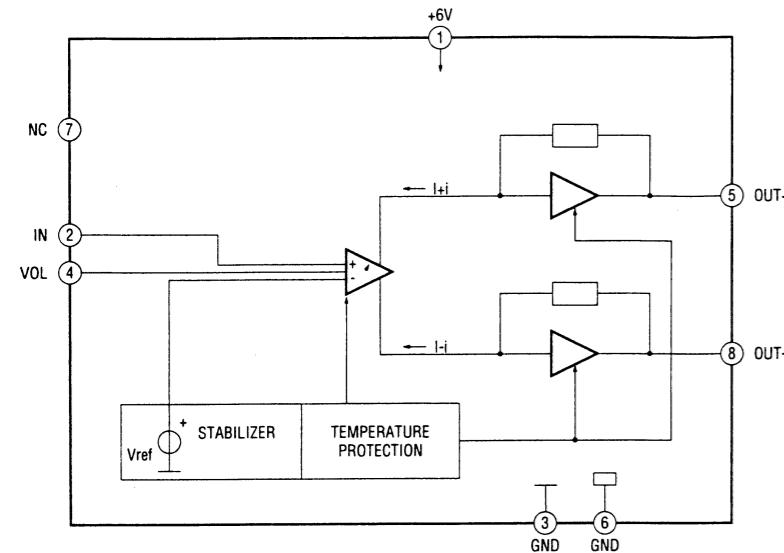
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3

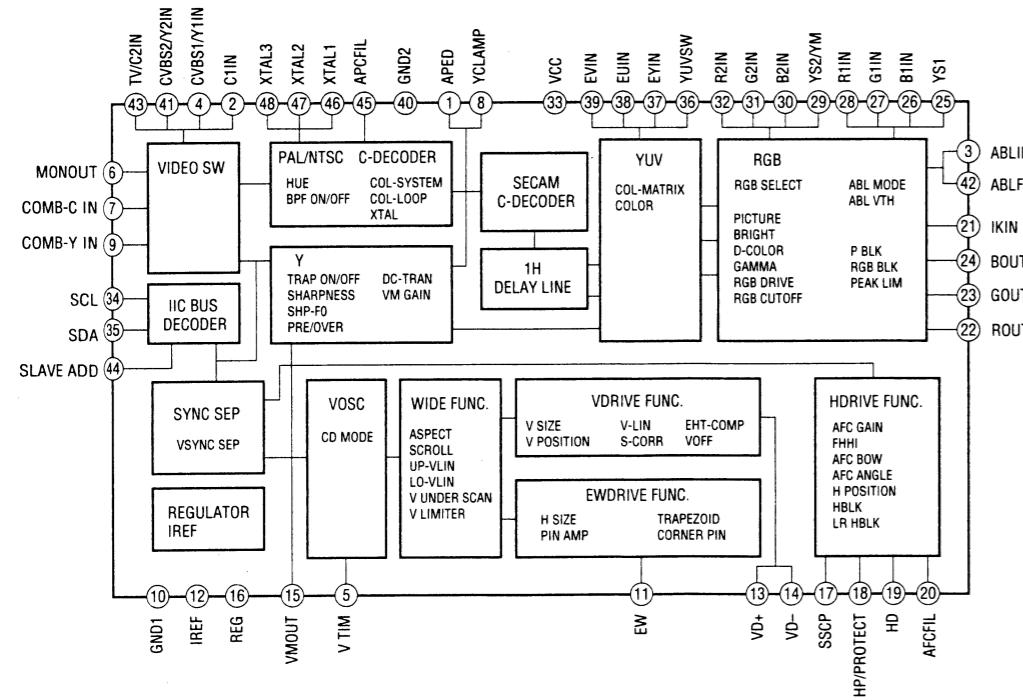
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5

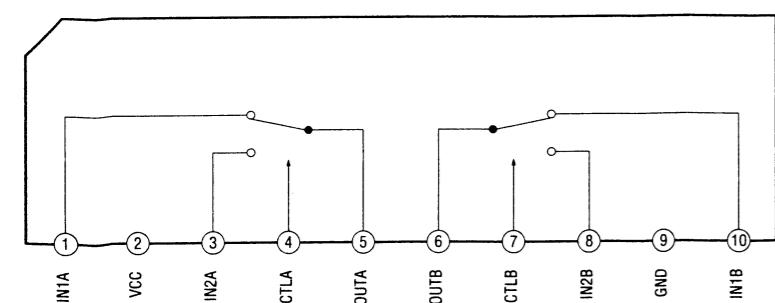
A (1/2) BOARD IC201 TDA7052A



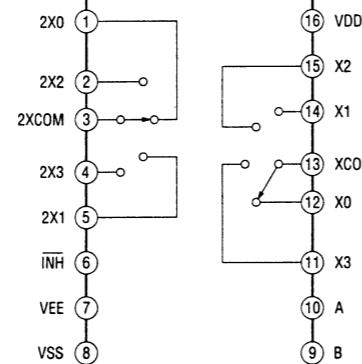
A (1/2) BOARD IC301 CXA2060BS



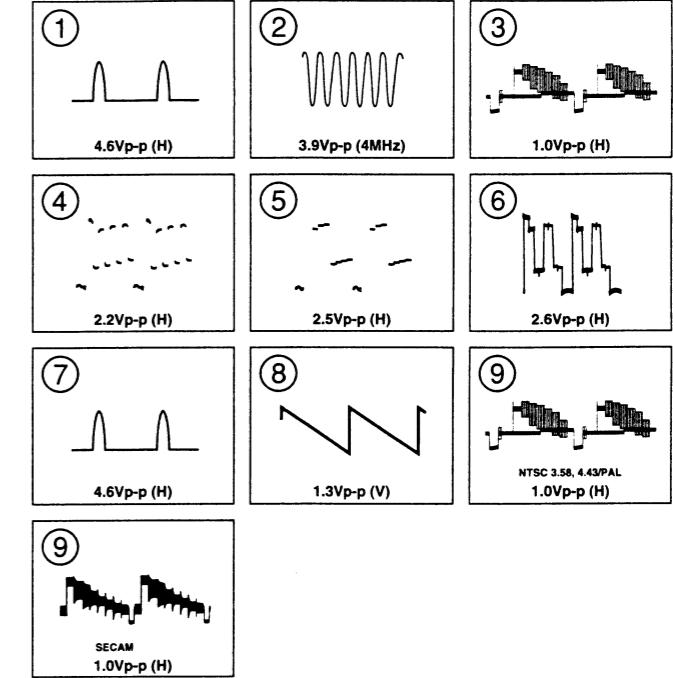
A (1/2) BOARD IC402 BA7604N



A (1/2) BOARD IC401 MC14052BCP



A (1/2) BOARD WAVEFORMS



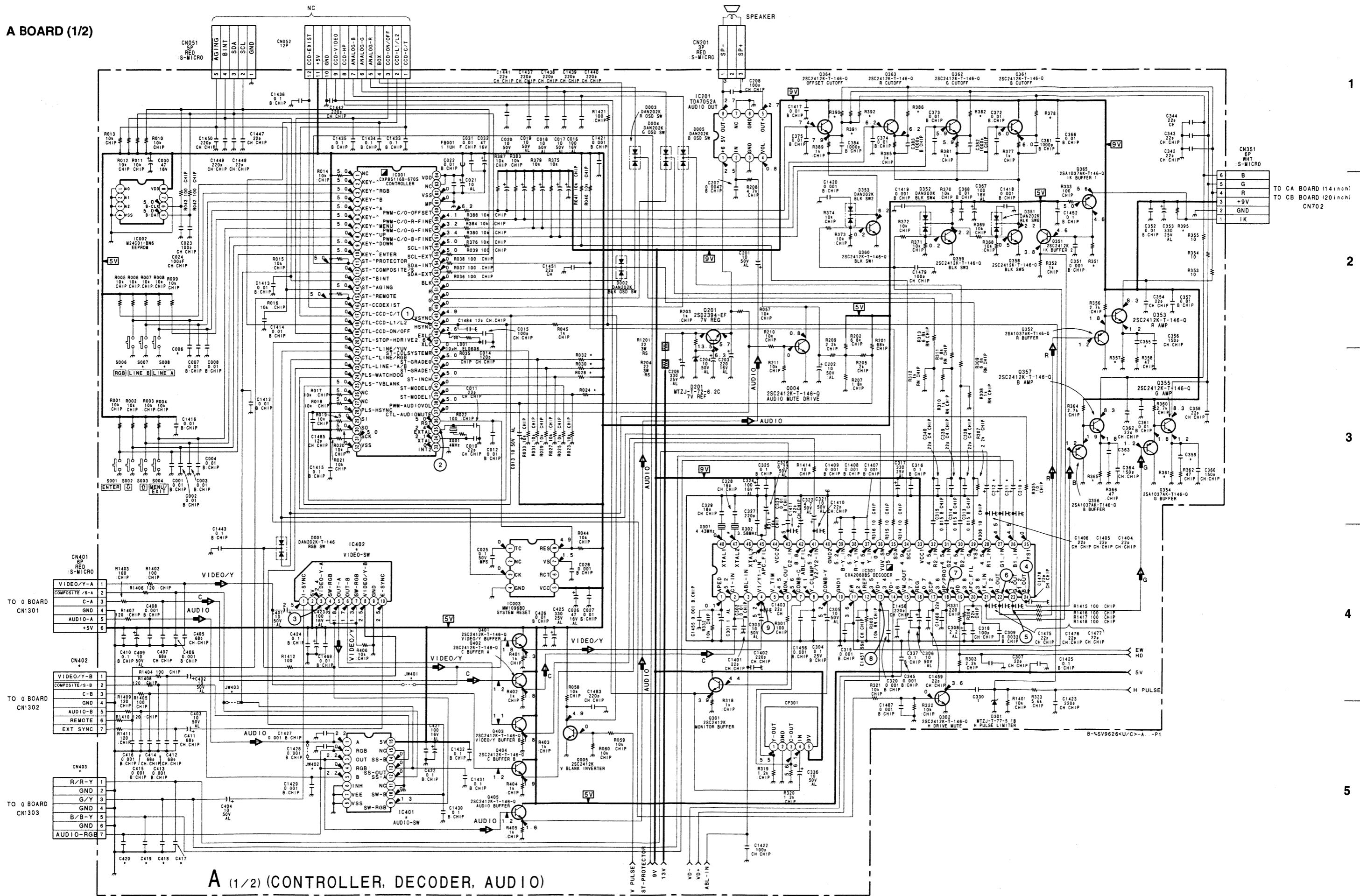
A (1/2) BOARD * MARK LIST

Model	PVM-14N6A/E/U	PVM-14N5A/E/U	PVM-20N6A/E/U	PVM-20N5A/E/U	SSM-14N5A/E/U	SSM-20N5A/E/U	PVM-14N5MDE
C006	0.01 B:CHIP	#	0.01 B:CHIP	#	#	#	#
C310	0.1 25V B:CHIP	#	0.1 25V B:CHIP	#	#	#	#
C311	0.1 25V B:CHIP	#	0.1 25V B:CHIP	#	#	#	#
C312	0.1 25V B:CHIP	#	0.1 25V B:CHIP	#	#	#	#
C355	330p CH:CHIP	330p CH:CHIP	390p CH:CHIP	390p CH:CHIP	330p CH:CHIP	390p CH:CHIP	330p CH:CHIP
C359	330p CH:CHIP	330p CH:CHIP	390p CH:CHIP	390p CH:CHIP	330p CH:CHIP	390p CH:CHIP	330p CH:CHIP
C363	330p CH:CHIP	330p CH:CHIP	390p CH:CHIP	390p CH:CHIP	330p CH:CHIP	390p CH:CHIP	330p CH:CHIP
C417	68p CH:CHIP	68p CH:CHIP	68p CH:CHIP	68p CH:CHIP	0:CHIP	0:CHIP	68p CH:CHIP
C418	68p CH:CHIP	68p CH:CHIP	68p CH:CHIP	68p CH:CHIP	0:CHIP	0:CHIP	68p CH:CHIP
C419	68p CH:CHIP	68p CH:CHIP	68p CH:CHIP	68p CH:CHIP	0:CHIP	0:CHIP	68p CH:CHIP
C420	0.001 B:CHIP	0.001 B:CHIP	0.001 B:CHIP	0.001 B:CHIP	0:CHIP	0:CHIP	0.001 B:CHIP
CN402	7P WHT :S-MICRO	7P WHT :S-MICRO	7P WHT :S-MICRO	7P WHT :S-MICRO	#	#	7P WHT :S-MICRO
CN403	7P YEL :S-MICRO	#	7P YEL :S-MICRO	#	7P YEL :S-MICRO	7P YEL :S-MICRO	#
IC401	MC14052BCP	MC14052BCP	MC14052BCP	MC14052BCP	#	#	MC14052BCP
IC402	BA7604N	BA7604N	BA7604N	BA7604N	#	#	BA7604N
JW401	#	#	#	#	5MM	5MM	#
JW402	#	#	#	#	5MM	5MM	#
JW403	#	#	#	#	5MM	5MM	#
R024	#	#	#	#	#	#	10
R028	#	#	10	10	#	10	#
R030	10	#	10	#	#	#	#
R032	10	10	10	#	#	#	10
R351	6.2k :RN-CP	6.2k :RN-CP	15k :RN-CP	15k :RN-CP	6.2k :RN-CP	15k :RN-CP	6.2k :RN-CP
R357	390 :RN-CP	390 :RN-CP	300 :RN-CP	300 :RN-CP	390 :RN-CP	300 :RN-CP	390 :RN-CP
R361	390 :RN-CP	390 :RN-CP	300 :RN-CP	300 :RN-CP	390 :RN-CP	300 :RN-CP	390 :RN-CP
R365	390 :RN-CP	390 :RN-CP	300 :RN-CP	300 :RN-CP	390 :RN-CP	300 :RN-CP	390 :RN-CP
R378	6.2k :RN	6.2k :RN	4.7k :RN	4.7k :RN	6.2k :RN	4.7k :RN	6.2k :RN
R382	5.1k :RN	5.1k :RN	3.9k :RN	3.9k :RN	5.1k :RN	3.9k :RN	5.1k :RN
R386	4.3k :RN	4.3k :RN	3.3k :RN	3.3k :RN	4.3k :RN	3.3k :RN	4.3k :RN
R390	3.6k :RN-CP	3.6k :RN-CP	3.3k :RN-CP	3.3k :RN-CP	3.6k :RN-CP	3.3k :RN-CP	3.6k :RN-CP
R391	3.6k :RN-CP	3.6k :RN-CP	3.9k :RN-CP	3.9k :RN-CP	3.6k :RN-CP	3.9k :RN-CP	3.6k :RN-CP
R392	3.6k :RN-CP	3.6k :RN-CP	4.7k :RN-CP	4.7k :RN-CP	3.6k :RN-CP	4.7k :RN-CP	3.6k :RN-CP
R395	22k :RN-CP	22k :RN-CP	47k :RN-CP	47k :RN-CP	22k :RN-CP	47k :RN-CP	22k :RN-CP
S006	RGB-KEY	#	RGB-KEY	#	#	#	#
S007	LINE B	LINE B	LINE B	LINE B	#	#	LINE B
S008	LINE A	LINE A	LINE A	LINE A	#	#	LINE A

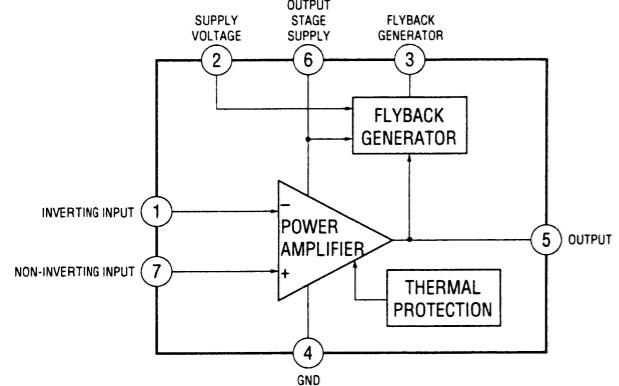
: NOT USED

A (1/2)

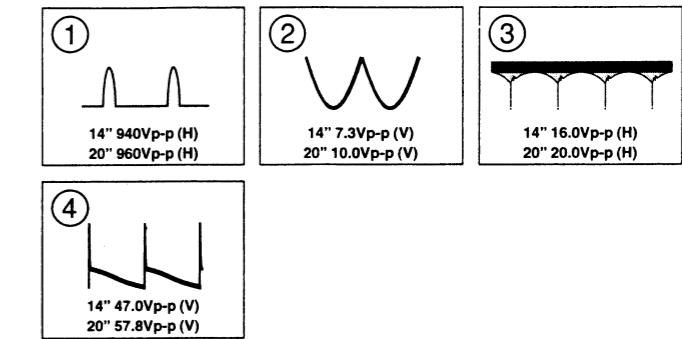
A BOARD (1/2)



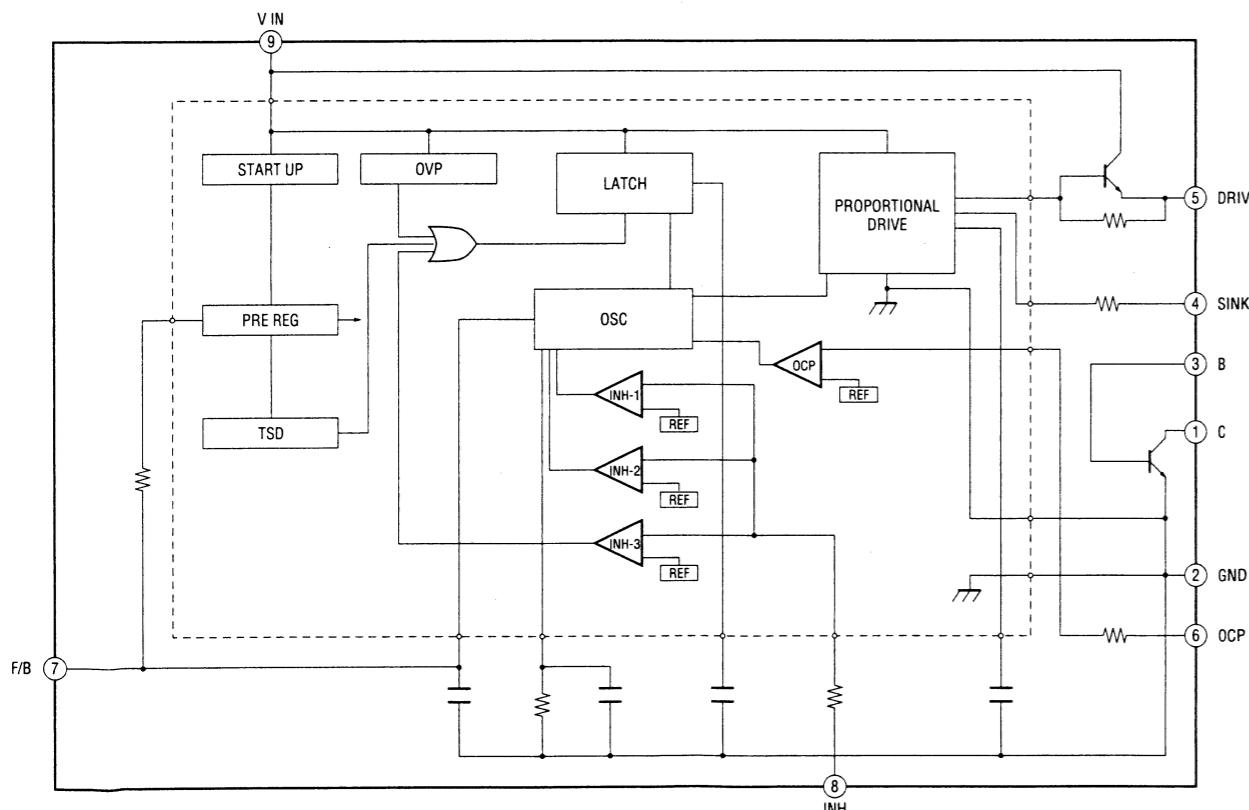
A (2/2) BOARD IC551 STV9739



A (2/2) BOARD WAVEFORMS



A (2/2) BOARD IC601 STR-S6708



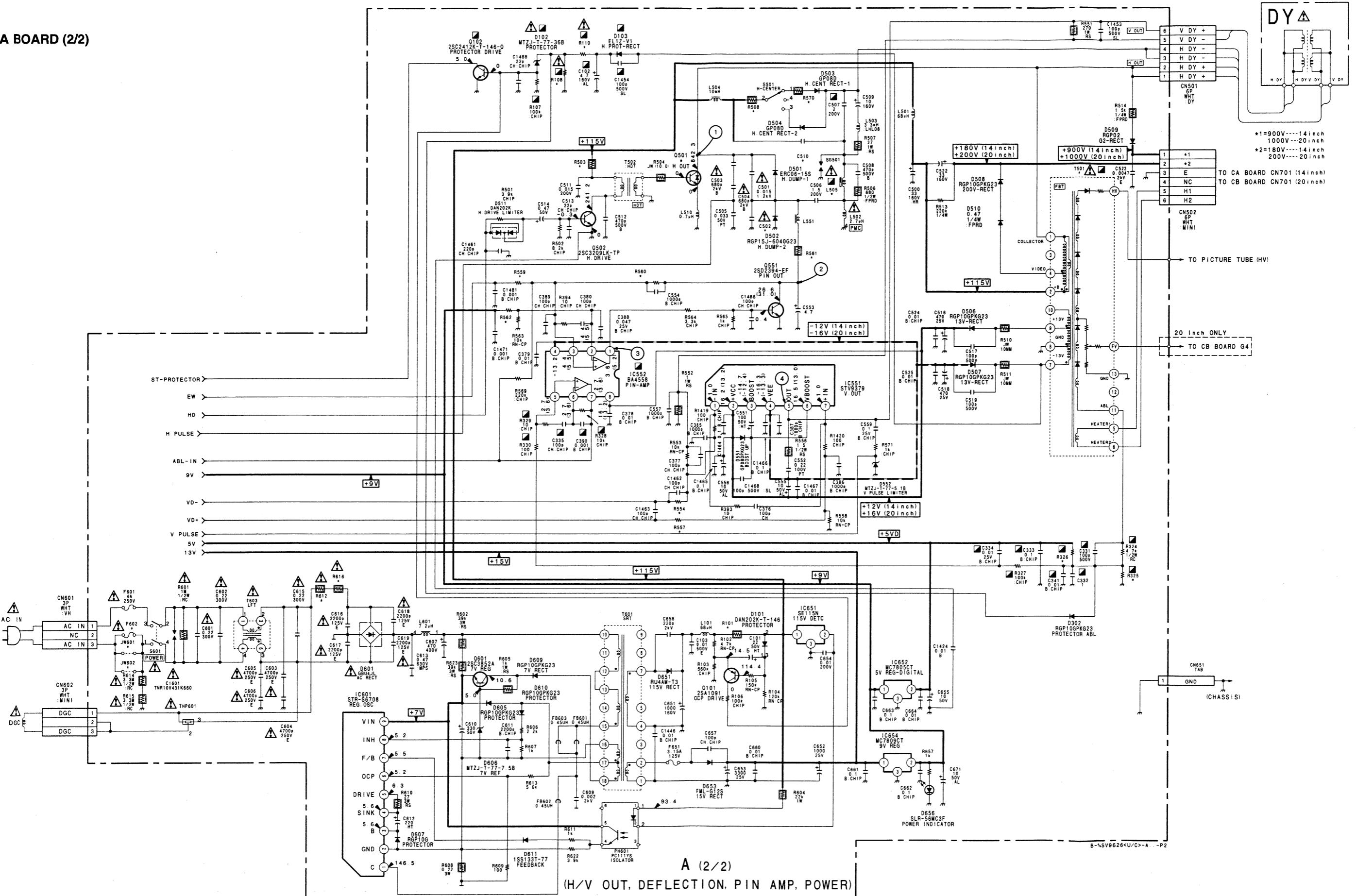
A (2/2) BOARD * MARK LIST

Model	PVM-14N6A/E/U	PVM-14N5A/E/U	PVM-20N6A/E/U	PVM-20N5A/E/U	SSM-14N5A/E/U	SSM-20N5A/E/U	PVM-14N5MDE
Ref.No							
C502	0.015 630V	0.015 630V	0.018 400V	0.018 400V	0.015 630V	0.018 400V	0.015 630V
C510	0.1 200V :PP	0.1 200V :PP	0.33 200V :PP	0.33 200V :PP	0.1 200V :PP	0.33 200V :PP	0.1 200V :PP
F602	#	#	#	#	#	#	4A/250V
JW601	10MM	10MM	10MM	10MM	10MM	10MM	#
JW602	10MM	10MM	10MM	10MM	10MM	10MM	#
L505	1-459-760-13	1-459-760-13	1-459-769-13	1-459-769-13	1-459-760-13	1-459-769-13	1-459-760-13
Q501	2SD1877S	2SD1877S	2SD1878-CA	2SD1878-CA	2SD1877S	2SD1878-CA	2SD1877S
R101	1.5 3W	1.5 3W	1.2 3W	1.2 3W	1.5 3W	1.2 3W	1.5 3W
R108	180k :RN-CP	180k :RN-CP	150k :RN-CP	150k :RN-CP	180k :RN-CP	150k :RN-CP	180k :RN-CP
R110	470k RN:CHIP	470k RN:CHIP	510k RN:CHIP	510k RN:CHIP	470k RN:CHIP	510k RN:CHIP	470k RN:CHIP
R325	12k :CHIP	12k :CHIP	8.2k :CHIP	8.2k :CHIP	12k :CHIP	8.2k :CHIP	12k :CHIP
R326	3.9k :CHIP	3.9k :CHIP	2.7k :CHIP	2.7k :CHIP	3.9k :CHIP	2.7k :CHIP	3.9k :CHIP
R503	4.7k 2W	4.7k 2W	3.3k 2W	3.3k 2W	4.7k 2W	3.3k 2W	4.7k 2W
R508	68 1W :RS	68 1W :RS	33 1W :RS	33 1W :RS	68 1W :RS	33 1W :RS	68 1W :RS
R554	30k :RN-CP	30k :RN-CP	24k :RN-CP	24k :RN-CP	30k :RN-CP	24k :RN-CP	30k :RN-CP
R557	30k :RN-CP	30k :RN-CP	24k :RN-CP	24k :RN-CP	30k :RN-CP	24k :RN-CP	30k :RN-CP
R559	15k :CHIP	15k :CHIP	3.9k :CHIP	3.9k :CHIP	15k :CHIP	3.9k :CHIP	15k :CHIP
R560	220k :CHIP	220k :CHIP	100k :CHIP	100k :CHIP	220k :CHIP	100k :CHIP	220k :CHIP
R561	IC-LINK	IC-LINK	8.2 1/4W :FPRD	8.2 1/4W :FPRD	IC-LINK	8.2 1/4W :FPRD	IC-LINK
R562	6.2k :RN-CP	6.2k :RN-CP	10k :RN-CP	10k :RN-CP	6.2k :RN-CP	10k :RN-CP	6.2k :RN-CP
R570	18 1W :RS	18 1W :RS	12 1W :RS	12 1W :RS	18 1W :RS	12 1W :RS	18 1W :RS
R612	1.5 10W :RB	1.5 10W :RB	1 10W :RB	1 10W :RB	1.5 10W :RB	1 10W :RB	1.5 10W :RB
R616	1.5 10W :RB	1.5 10W :RB	1 10W :RB	1 10W :RB	1.5 10W :RB	1 10W :RB	1.5 10W :RB
T501	NX-4301	NX-4301	NX-4008	NX-4008	NX-4301	NX-4008	NX-4301

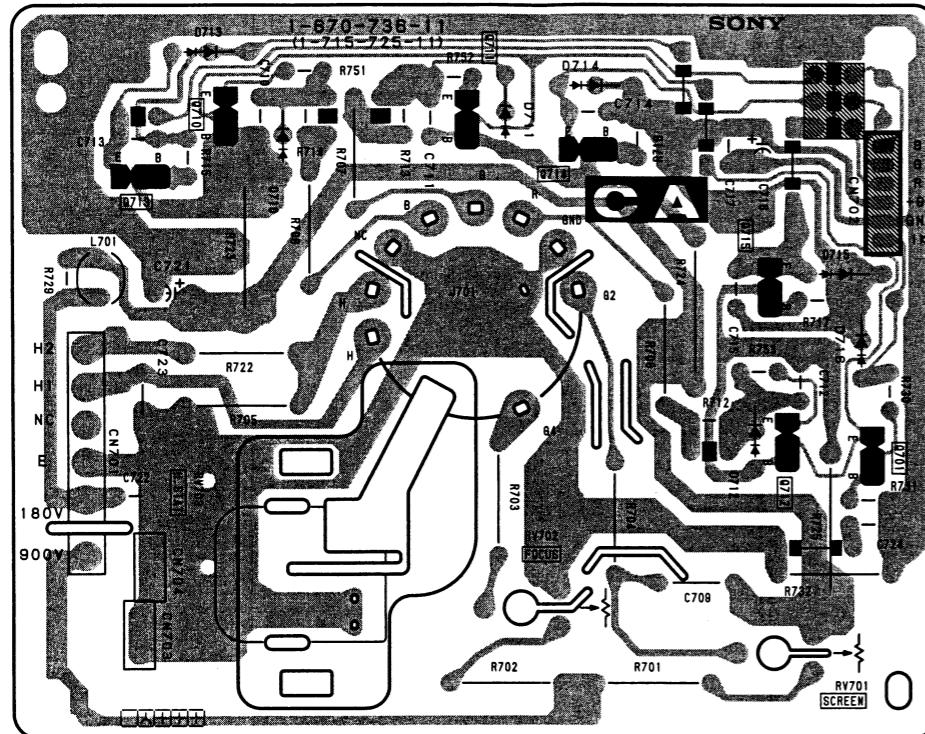
: NOT USED

A (2/2) A (2/2)

A BOARD (2/2)

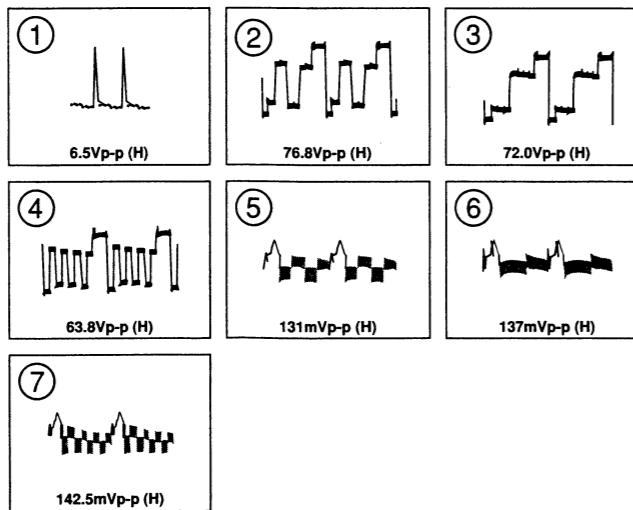


CA BOARD



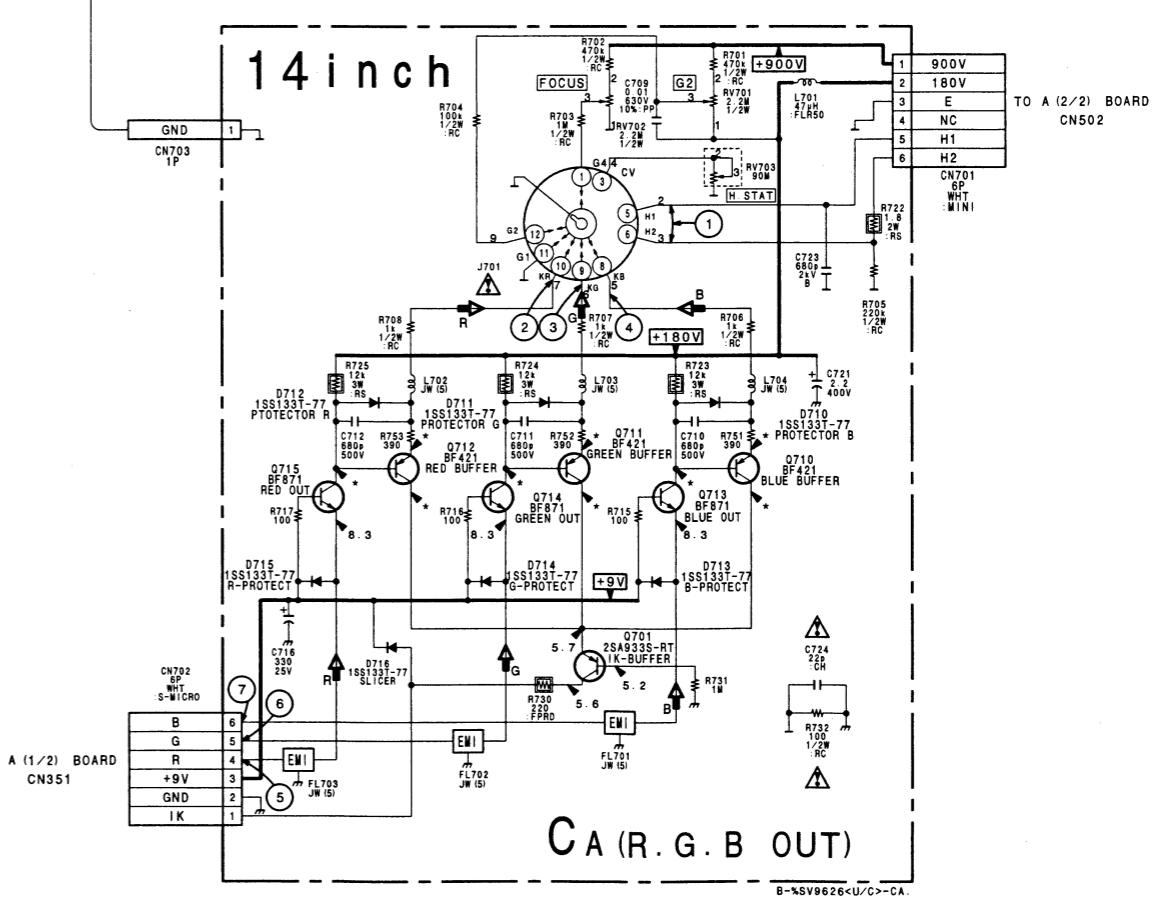
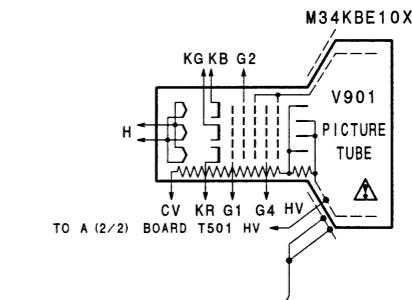
CA -B SIDE-
SUFFIX: -11

CA BOARD WAVEFORM

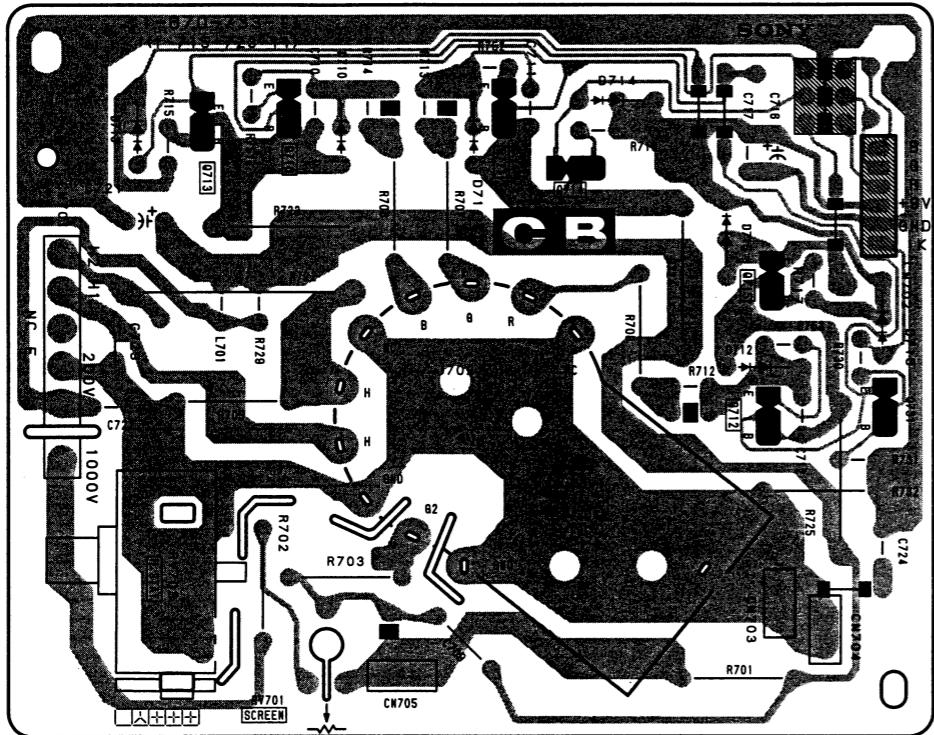


CA BOARD * MARK

		NTSC 3.58	NTSC 4.43	PAL	SECAM
Q710	B	154.1	154.4	140.1	141.2
	E	165.2	165.2	160	154.2
Q711	B	152.5	152.6	138.6	139.6
	E	164.7	164.7	160	160.4
Q712	B	153.2	153.2	135.5	136.7
	E	166.2	166.3	161.2	159.5

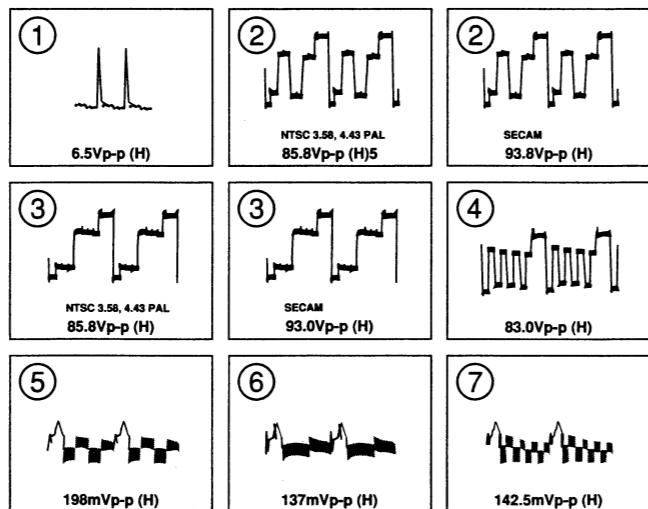


CB BOARD



CB -B SIDE-
SUFFIX: -11

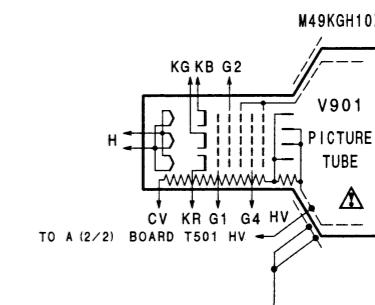
CB BOARD WAVEFORM



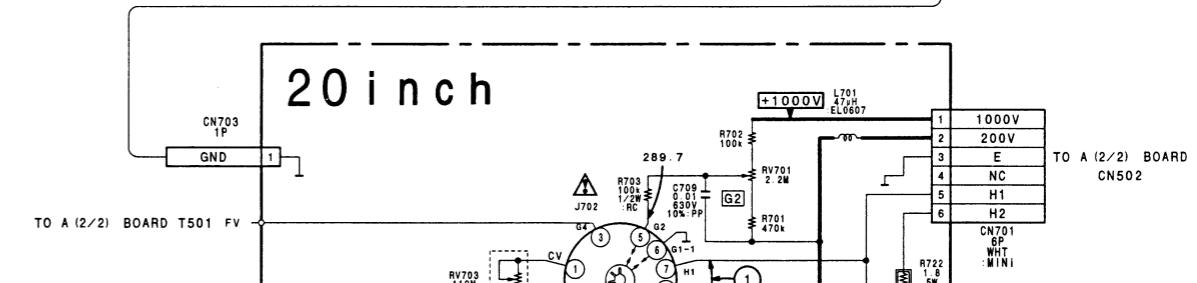
CB BOARD * MARK

		NTSC 3.58	NTSC 4.43	PAL	SECAM
Q710	B	142.1	141.5	141.8	143.8
	E	161.9	162.4	171.7	168.6
Q711	B	140.2	138.2	141.3	142.1
	E	166.5	166.4	184.6	184.6
Q712	B	137.4	137.2	138.6	140.4
	E	170.6	171.2	189.6	184.1

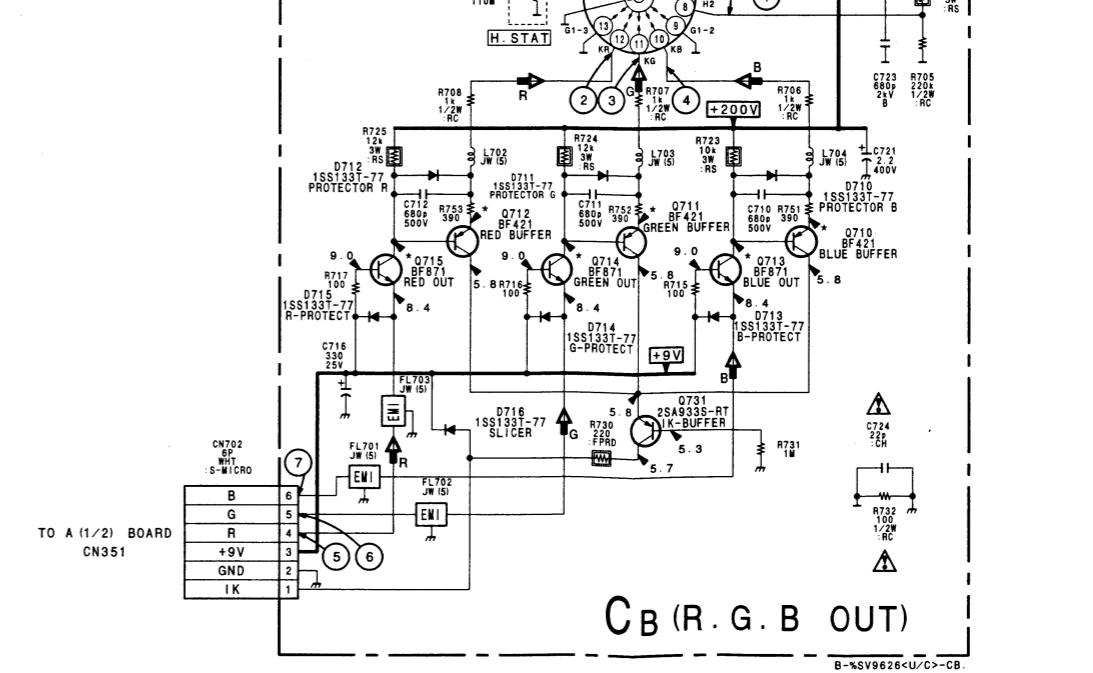
2



3



4

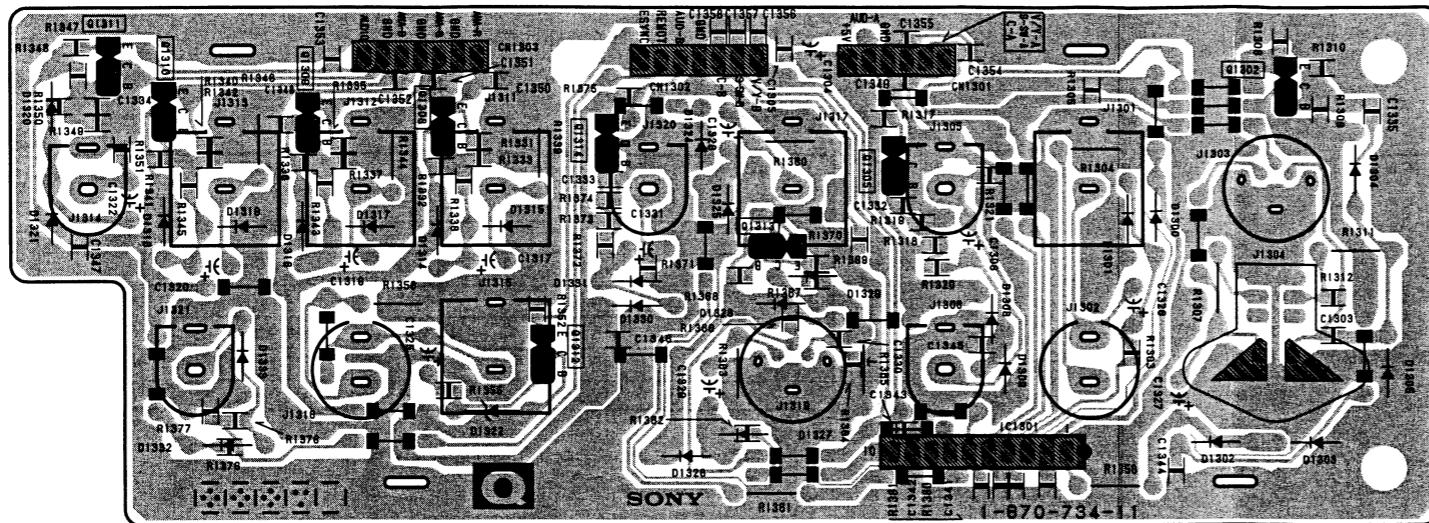


C_B (R . G . B OUT)

5

Q Q

Q BOARD



Q -B SIDE-
SUFFIX: -11

Q BOARD * MARK LIST

Model	PVM -14N6A/E/U -20N6A/E/U	PVM -14N5A/E/U -20N5A/E/U -14N5MDE	SSM-14N5A/E/U -20N5A/E/U
C1317	10 25V	#	#
C1319	10 25V	#	#
C1320	10 25V	#	#
C1322	10 25V	#	#
C1325	10 25V	#	#
C1328	10 25V	10 25V	#
C1329	10 25V	10 25V	#
C1330	0.01 B:CHIP	0.01 B:CHIP	#
C1331	10 25V	10 25V	#
C1333	150p :CHIP	150p :CHIP	#
C1334	150p :CHIP	#	#
C1350	22p CH:CHIP	22p CH:CHIP	0 :CHIP
C1351	22p CH:CHIP	22p CH:CHIP	0 :CHIP
C1352	22p CH:CHIP	22p CH:CHIP	0 CHIP
C1353	22p CH:CHIP	22p CH:CHIP	0 CHIP
CN1302	7P WHT-L :S-MICRO	7P WHT-L :S-MICRO	#
CN1303	7P YEL-L :S-MICRO	#	7P YEL-L :S-MICRO
D1314	ISS133T-77	#	#
D1315	ISS133T-77	#	#
D1316	ISS133T-77	#	#
D1317	ISS133T-77	#	#
D1318	ISS133T-77	#	#
D1319	ISS133T-77	#	#
D1320	ISS133T-77	#	#
D1321	ISS133T-77	#	#
D1322	MTZJ-T-77	#	#
D1324	ISS133T-77	ISS133T-77	#
D1325	ISS133T-77	ISS133T-77	#
D1326	ISS133T-77	ISS133T-77	#
D1327	ISS133T-77	ISS133T-77	#
D1328	ISS133T-77	ISS133T-77	#
D1329	ISS133T-77	ISS133T-77	#
D1330	ISS133T-77	ISS133T-77	#
D1331	ISS133T-77	ISS133T-77	#
D1332	ISS133T-77	#	#
D1333	ISS133T-77	#	#
Q1308	2SC1740S	#	#
Q1309	2SC1740S	#	#
Q1310	2SC1740S	#	#
Q1311	2SA933S-RT	#	#
Q1312	2SC1740S	#	#
Q1313	2SC1740S	2SC1740S	#
Q1314	2SA933S-RT	2SA933S-RT	#
R1331	1k :CHIP	#	#
R1332	10k :CHIP	#	#
R1333	10k :CHIP	#	#
R1335	1k :CHIP	#	#
R1336	10k :CHIP	#	#
R1337	10k :CHIP	#	#
R1338	22 :CHIP	#	#
R1339	75 1/4W :RN	#	#
R1340	1k :CHIP	#	#
R1341	10k :CHIP	#	#
R1342	10k :CHIP	#	#
R1343	22 :CHIP	#	#
R1344	75 1/4W :RN	#	#
R1345	22 :CHIP	#	#
R1346	75 1/4W :RN	#	#
R1347	4.7k :CHIP	#	#
R1348	820k :CHIP	#	#
R1349	270k :CHIP	#	#
R1350	100k :CHIP	#	#
R1351	82k :CHIP	#	#
R1352	2.7k :CHIP	#	#
R1355	1k :CHIP	#	#
R1356	75 1/4W :RN	#	#
R1360	75 1/4W :RN	75 1/4W :RN	#
R1361	22	22	#
R1362	22 :CHIP	22 :CHIP	#
R1363	75 1/4W :RN	75 1/4W :RN	#
R1364	4.7k :CHIP	4.7k :CHIP	#
R1365	75 1/4W :RN	75 1/4W :RN	#
R1366	4.7k :CHIP	4.7k :CHIP	#
R1367	0.01 B:CHIP	0.01 B:CHIP	#
R1368	10k :CHIP	10k :CHIP	#
R1369	10k :CHIP	10k :CHIP	#
R1370	2.7k :CHIP	2.7k :CHIP	#
R1371	82k :CHIP	82k :CHIP	#
R1372	100k :CHIP	100k :CHIP	#
R1373	820k :CHIP	820k :CHIP	#
R1374	270k :CHIP	270k :CHIP	#
R1375	4.7k :CHIP	4.7k :CHIP	#
R1376	10k :CHIP	#	#
R1378	22 :CHIP	#	#

: NOT USED

10-10

10-10

A

B

C

D

E

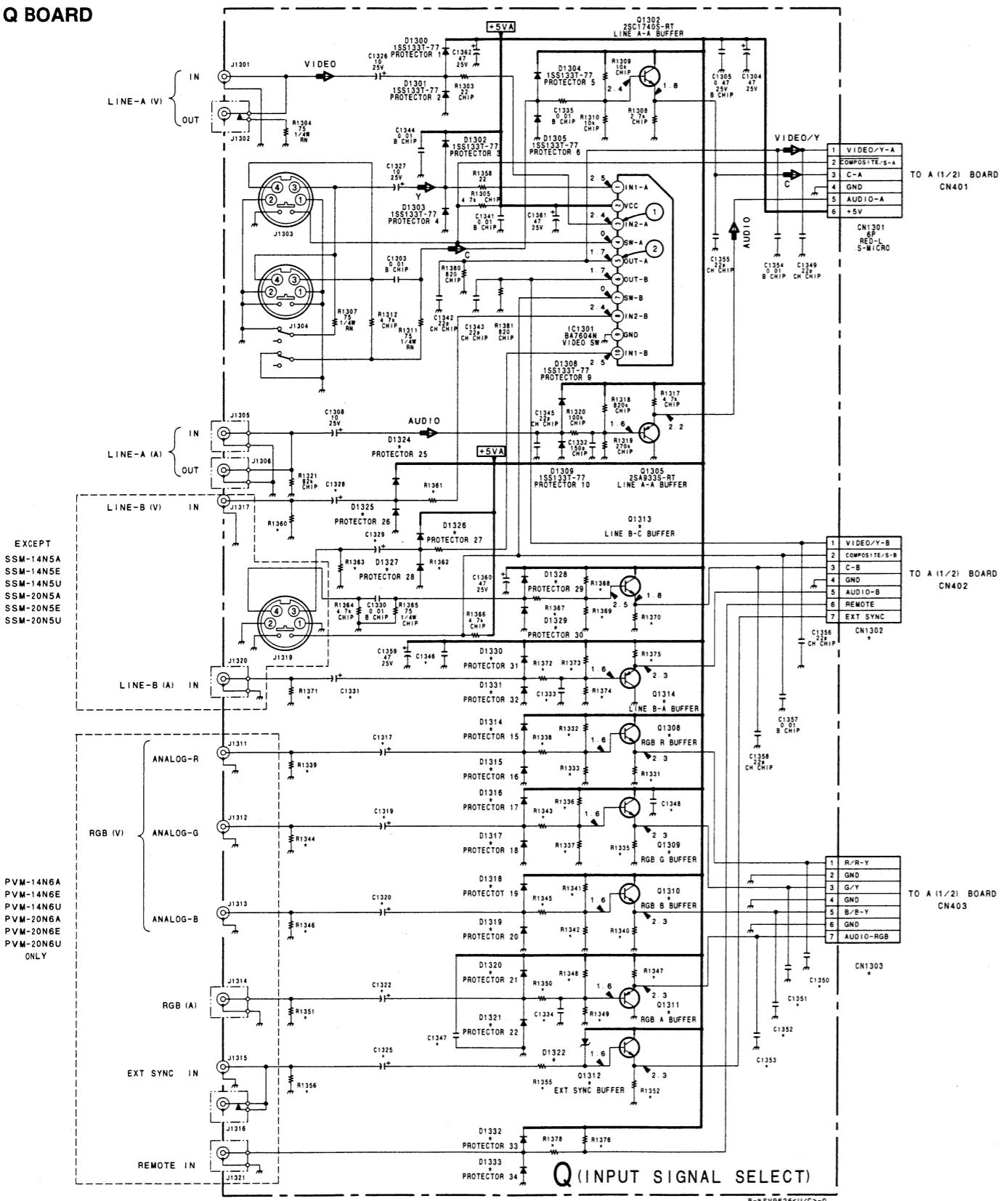
F

G

SIIA Chassis

H

Q BOARD



Q BOARD WAVEFORM

